STATUS INCONSISTENCY AND MENTAL HEALTH

BY

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Dedicated to

my

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> The race of mankind would perish did they cease to aid each other.--We cannot exist without mutual help. All therefore that need aid have a right to ask it from their fellow-men; and no one who has the power of granting can refuse it without guilt.
>
> Walter Scott

The above quotation is, of course, another way of expressing John Donne's well known concept that "no man is an island." In the process of obtaining an education and completing this dissertation I have certainly had to call upon many people for help and have not been refused. Acknowledging all who have provided assistance would be an impossible task. Therefore, I shall restrict myself to the formidable task of acknowledging those who have been most influential in my educational process or have contributed to the preparation of this dissertation.

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STATUS INCONSISTENCY AND MENTAL HEALTH

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The purpose of this research is to examine the relationship between status inconsistency and mental health. Since Max Weber first set forth his ideas concerning the relationship between class, status and power, sociologists have been enamored with the prospect of a multidimensional approach to social stratification. Within this context, the notion of status inconsistency has been a controversial research topic in the recent sociological literature.

In this research, literature was reviewed which reported the relationship between status inconsistency and twenty other variables. Additionally, methodological criticisms of status inconsistency research were reviewed, and the procedures employed in this analysis for dealing with those issues were explained. The three variables of education, occupation and income were measured according to a procedure developed by the U.S. Bureau of the Census and a status inconsistency measure developed by the same agency

was utilized. Mental health was assessed on six different measures. The analysis controlled for the effects of race, sex, SES, age and marital status on mental health, in order to determine to what extent the findings could be attributed to status inconsistency as opposed to other status variables. Utilizing multiple regression procedures, these control variables were allowed to explain all the variance in mental health scores attributable to them before the status inconsistency variables were introduced to determine what portion of the remaining variance was attributable to status inconsistency.

The data for this analysis were obtained by combining two epidemiological field surveys collected between 1970 and 1973 in central and north central Florida. In each case, the procedure for selecting the sample was a systematic probability method with interviewers utilizing the Kish method for selecting respondents within household.

The general theoretical approach of this analysis was the structural functional perspective which maintains that it is functional for the social order if positions requiring greater training (investments) are more highly rewarded. Within this general frame of reference the perspective of distributive justice as explicated by George Homans provided a more specific approach emphasizing the proportionality of investments and rewards. According to distributive justice,

discrepancies between investments and rewards are experienced as an uncomfortable or stressful condition. The stress experienced from being status inconsistent would then be expected to have a negative influence on mental health. In this analysis, education and occupation were considered as investment variables and income was considered as the reward variable. The findings supported the theoretical expectations, status inconsistency of an underrewarded type, rewards below investments, was found to be associated with poor mental health.

A serendipitous finding was found when the interaction between SES and overreward was considered, the overrewarded type of status inconsistency actually had scores indicating better mental health than the status consistents. As SES increased the mental health scores indicated better mental health for the overrewarded than for the status inconsistents.

The predominant process in the relationship between status inconsistency and mental health has been a debated issue. Some maintain that status inconsistency is a stressful condition which has a negative effect on mental health; others argue that poor mental health is likely to result in status inconsistency. Two independent tests were developed and executed to aid in determining the predominant process in the relationship between status inconsistency and

poor mental health. The results of both tests clearly favored the first position that status inconsistency has a negative effect on mental health.

A serendipitous finding as a by product of the second of these tests was that the perception of underreward was a better predictor of poor mental health than more objective measures of underreward after the interaction with age was considered.

CHAPTER 1
INTRODUCTION

From the beginning of man's existence his social order has included a hierarchical status ranking of individuals. Certainly man's biological predecessors have a known pecking order, or dominance-submission pattern. A question which has intrigued social scientists and others is, What are the effects for man when the pecking order is uncertain, when the dominace-submissive patterns are unclear? This work deals with this issue. More specifically, it is designed to examine the relationship between status inconsistency and mental health. It asks, What are the implications for a person's mental health when the statuses or positions which he holds in society are decided by unequal or inconsistent criteria? Does ranking high on some statuses, e.g., education, occupation, or income, and ranking low on other statuses, e.g. education, occupation, or income, result in a stressful condition which has a negative effect on mental health? In investigating the relationship between status inconsistency and mental health, this work will deal with the following issues. Is there any association between status inconsistency and mental health? If so, how strong is the relationship and are they positively or negatively related?

Additionally, if such an association does exist, are there any means whereby the direction of the predominant process in the relationship may be assessed?

Some of man's earliest recorded history has shown that the issue of social stratification, the ranking of individuals or groups in a vertical manner according to some criteria, is as old as man. In fact, in some sense, Original Sin as recorded in Genesis was related to the system of social stratification. The serpent told Eve that if she ate of the tree of the knowledge of good and evil she would become as God. Therefore, instead of being ranked below God on the criteria of knowledge of good and evil, she would be ranked equal with God. Thus, Original Sin was an attempt to circumvent the existing stratification system.

Aristotle, in his work Politics also recognized the existence of a social stratification system. He wrote:

> Now in all states there are three elements: one class is very rich, another very poor, and a third is a mean. It is admitted that moderation and the mean are best, and therefore, it will clearly be best to possess the gifts of fortune in moderation; for in that condition of life men are most ready to follow rational principle. But he who greatly excels in beauty, strength, birth, or wealth, or on the other hand who is very poor, or very weak, or very much disgraced, finds it difficult to follow rational principle. (Aristotle, 1943:190)

In the latter part of the quote, Aristotle appears to be giving credence to a multidimensional approach to social stratification when he lists various areas in which a person

may excel rather than a unidimensional approach in which one area is emphasized.

Probably the person generally considered to be the leading exponent of the unidimensional approach to stratification is Karl Marx. It was Marx's conviction that a person's position in the stratification system was determined by his relationship to the means of production. For the most part this meant whether one was an owner of the means of production or a worker in the means of production. Marx held this principle to be true regardless of what the means of production might entail.

Without becoming overly involved in Marxian theory, it should be pointed out that Marx believed classes started from a position of class an sich or "class in itself" and moved to a position of class für sich or "class of itself" (Barber, 1957:219). In the former state the class was not conscious of itself; in the later state class consciousness had developed. Under class consciousness, the class took on an almost community-like quality in which the class recognized its interests and acted to achieve them.

Max Weber reacted to the writings of Marx. Weber maintained that classes do not achieve the type of class consciousness attributed to them by Marx; class members may unite on transient economic issues, but they do not achieve the level of consciousness Marx indicated. More important

for the issue under consideration here, Weber introduced the first significant statement of a multidimensional approach to social stratification. Weber recognized three dimensions of stratification: class, status, and party (Gerth and Mills, 1946:18-95). Class was basically an economic dimension; it represented the economic order. Status was basically an honor or prestige dimension which represented the social order. Party was basically a power or political dimension which represented the legal or political order.

Since the time of Weber, scholars have been giving increasing credence to the multidimensional view of stratification. Warner et al. (1949) constructed an index of social class based on a multidimensional approach. Stonequist (1937) in The Marginal Man, expressed the notion that the marginal man was between statuses, having some of the characteristics of a particular status but not all of them. Sorokin (1947) also viewed social stratification from a multidimensional perspective. He pointed out that the individual's rank within a group was dependent upon his relationship to the primary bond which held the group together. Thus, in a religious group, the individual's religious status was important in determining his position. In an economic group, the individual's economic status was the important factor. Sorokin also noted, however, that many groups were of a multibonded nature, and thus, more than one status of the individual became important in

determining his position. Similarly, when discussing caste Sorokin noted that:

> The upper and lower castes are superior or inferior not on a single basis but on a multiple basis. The Brahmins are superior to the Sudras in race, religion, occupation, kinship, language, education, and so on. Likewise, the social estate of the nobles in comparison with that of the free population and slaves is superior not for one reason, but for three: occupation, economic, and state. (Sorokin, 1947:289)

One of the first persons to recognize the multidimensional nature of stratification and to point out that discrepant positions in these various dimensions could have implications in and of themselves for the individual was Emile Benoit-Smullyan (1944). He maintained that the term social status was employed too indiscriminately and developed the neologisms of situs and locus to aid in dealing with the situation. He intended the term situs to be used in relation to horizontal distinctions and groupings rather than vertical or ranking distributions and groupings. A social situs is an aggregate of persons who are distinguished by society on the basis of some common characteristic either real or imaginary. Locus refers to the "socially standardized function which an individual performs in an organized group" (Benoit-Smullyan, 1944:154). Benoit-Smullyan agreed with Weber that there are a relatively few status hierarchies which are of primary importance. He believed these important status hierarchies to be

economic status, prestige status, and political status, which are synonymous with Weber's class, status, and party. He realized that a "high degree of concomitant variation exists" (Benoit-Smullyan, 1944:156) among these three status hierarchies. But he argued that the three hierarchies could and should be differentiated and that many persons did not rank evenly on these hierarchies. In fact, Benoit-Smullyan pointed out the process of "status conversion," by which an individual might employ his resources in one status hierarchy in order to improve his position in another. Thus, any individual might use his political power in order to gain wealth or prestige; any one status position might be utilized to improve the other two. He suggested that, "as a result of status conversion processes which are normally at work in every society, there exists a real tendency for the different types of status to reach a common level" (Benoit-Smullyan, 1944:160). This tendency for fusing status was labeled as the "status equilibration" process. He believed "when legal, customary, or other barriers seriously hamper the equilibration tendency, social tensions of revolutionary magnitude may be generated" (Benoit-Smullyan, 1944:160).

Following these earlier leads, Stuart Adams (1953) studied U.S. Air Force bomber crews in order to determine the implications of status congruency within small groups. It was found that increased status congruency at first had a

positive effect on technical performance, but changed to a deterioration in technical performance with the passage of time. Increased status congruency, however, did lead to increased group cohesion, harmony, and social performance. Zaleznik et al. (1958:59) later pointed out that Adams' findings suggest that from conditions of high status congruency the social leader of the group is likely to emerge, while from conditions of low status congruency, the task leader of the group is likely to emerge.

This introduction has attempted to accomplish two tasks. First, to define the purpose of this work, which is to examine the relationship between status inconsistency and mental health. Specifically, the following types of questions will be examined: Is there any association between status inconsistency and mental health? If so, what is the direction of the relationship and how strong is it? Is there any evidence which would aid in assessing the direction of the predominant process if a relationship were found?

Second, the introduction provided a brief historical review of the social thought concerning social stratification which has been instrumental in the development of theory and research related to status inconsistency. The major components of this social thought up to the time Gerhard Lenski expounded his ideas concerning status crystallization are briefly reviewed.

CHAPTER 2
LITERATURE REVIEW

The literature concerning status inconsistency is vast and varied. For this reason the literature will be reviewed according to the dependent variables which various researchers have attempted to relate to status inconsistency. It should be noted that most of this literature has appeared since 1954. In that year, Lenski published the article, "Status Crystallization: A Non-Vertical Dimension of Social Status," which provided the impetus for most of the subsequent research which has been done relating to status inconsistency. In fact, one of the basic criticisms one often hears concerning status inconsistency is that we are still too heavily dependent on Lenski's ideas and we have not made significant progress beyond them. Therefore, consideration will be given first to Lenski's original articles, and second, the literature will be considered according to the variables related to status inconsistency.

Lenski (1954), in his first test of status inconsistency, examined inconsistency in the four status hierarchies of income, occupation, education, and ethnicity. The status inconsistency measure was obtained by finding the midpoint

of the cumulative frequency distribution for each status hierarchy. Then, the square root of the sum of the squared deviations from the mean of the four hierarchy scores of the individual were subtracted from one hundred. Lenski found that those characterized by low status crystallization were more likely to vote Democratic. The low status crystallization group was also more likely to express liberal attitudes concerning government health insurance, price controls, and extension of government powers. It was also found that regardless of the particular form or type of low crystallization, those having any type of low status crystallization tended to have more liberal attitudes. He did find, however, that certain types of status inconsistency were more closely related to political liberalism than other types. He concluded from his findings that "one might predict that the more frequently acute status inconsistencies occur within a population the greater would be the proportion of that population willing to support programs of social change" (Lenski, 1954:412). It was Lenski's belief that the status inconsistent individual represented a particular type of "marginal man" who was subject to pressures not felt by the status consistent individuals. He went on to suggest three ways in which the individual might react to his status inconsistency: he may blame others; he may blame himself; or he may withdraw socially.

Political Liberalism

Kenkel (1956) attempted to verify Lenski's findings by retesting his hypothesis. Kenkel's research failed to produce supporting results. Lenski (1956a) criticized Kenkel's retest, maintaining that Kenkel had used status dimensions such as prestige of neighborhood and area of residence which did not occupy a "central place in American society."

Lenski (1967) further tested his own theory by a secondary analysis of data on twenty-five national surveys of voting behavior in Canada, Australia, Britain, and the United States. He found in twenty-one of the twenty-five surveys that discrepancies between occupational rank and socioreligious rank increased liberal tendencies. Britain was the exception to this general pattern. Britain's departure from this pattern was felt to be at least partially attributable to the relatively homogeneous religious structure of that country.

Schmitt (1965) used the statuses of education, ethnicity, husband's occupation and husband's income to measure status inconsistency in a sample of 153 white married females. He found the status incongruent white females to be more politically liberal, and those having an educational level below their husband's occupation or income to be the most politically liberal.

Kelly and Chambliss (1966) found that social class groups vary in their relationship to political liberalism

depending on which issues are under consideration. They point out that political liberalism is not a unidimensional concept. They also warn against the interpretation of votes for the Democratic party as indicators of political liberalism. This would seem to be especially relevant in light of the traditional voting habits of many ethnic groups. They argue that ethnic background and social class membership are "far more important determinants of political attitudes than the degree to which persons are status consistent or inconsistent" (1966:27).

Similar results were obtained by Laumann and Segal (1971) in comparing the effects of status inconsistency versus ethnic group identification. They found greater support for ethnic identity in explaining political and social behavior than for status inconsistency.

In a study of data collected before and after the 1964 presidential election, Eitzen (1973) found that socio economic status was a better predictor of consistent and persistent political attitudes than was status inconsistency. It should also be noted that neither disproportionately liberal nor disproportionately conservative attitudes were found among the status inconsistent people.

Democratic Vote

Ascribed and achieved status discrepancy was found by Segal and Knoke (1968) to be more highly associated with

Democratic party vote than was discrepancy between achieved statuses. Later, Segal (1969) also found that discrepancies between socioeconomic status and ethnic status were associated with a Democratic party voting preference.

Using a sample collected by the University of Michigan Survey Research Center for studying presidential elections from 1952 to 1964, Smith (1969) obtained similar results. He found that status inconsistency among achieved statuses was more highly associated with Democratic party vote for those under age forty-five than for those over that age.

Political Change

Laumann and Segal (1971) found no significant difference in preference for political change among those consistent and inconsistent with respect to educational and ethnoreligious status. Status inconsistency was also found to be unrelated to attitudes concerning political change by Olsen and Tully (1972).

Presidential Assassins

Wilkinson (1970) conceptualized status inconsistency as the discrepancy between desired or expected status and actual, achieved status. He found this type of status inconsistency to characterize all the people who have attempted or completed an assassination of an American president.

Right-Wing Attitudes

Utilizing the status varibles of income, occupation, and education, Rush (1967) in a study of attitudes on social, political, and economic issues found greater support for extreme right-wing attitudes among the status inconsistents than among the status consistents. But he did not test for the distribution of scores on left-wing attitudes.

Eitzen (1970a) found Wallace supporters (who were used as they indicated an adherence to the radical right) were below the community median in education and occupation, but above the median in income. This was interpreted as evidence that those who experience structural imbalance (status inconsistency) are more likely to support extreme political movements.

In a secondary analysis of data collected during the 1964 presidential election, Hunt and Cushing (1970) found that particular types of status inconsistency were related to favorable or unfavorable attitudes towards the John Birch Society. Specifically, they found that unfavorable attitudes were highest among the education high-income low, and the racial ethnic status low-achieved status high, types of inconsistency. The high income-low occupation and low income-high occupation inconsistency types displayed the most favorable attitudes towards the John Birch Society.

Ethnicity and social class were found to be related to political nationalism by Loh (1975), but status inconsistency as measured by the interaction effects of ethnicity

and social class were not found to be related to political nationalism.

Power Distribution

In a study of desire for change in power distribution, Goffman (1957) was the first to suggest that status inconsistency be viewed from the perspective of discrepancies between ascribed and achieved statuses. Others who made use of this type of approach included Jackson (1962), Lenski (1964), Segal and Knoke (1968), Olsen and Tully (1972), and Jackson and Curtis (1972). The typical procedure employed is to consider education, income, and occupation as achieved statuses and age, sex, and race as ascribed statuses. Goffman found the high achieved status and low ascribed status inconsistents to have the greatest desire for a rearrangement of power.

Prejudice

Income and education were the status dimensions employed by Treiman (1966); he found that status inconsistency showed no significant association with the distribution of prejudical attitudes. Treiman was criticized by Geschwender (1970), however, for utilizing only two status dimensions in his analysis of status inconsistency.

Social Participation

Employing the status variables of education and ethnoreligious status, Laumann and Segal (1971) failed to find any significant difference with respect to social participation between status consistent and status inconsistent individuals.

Individual Unrest

Geschwender (1968a) found support for the hypothesis that status inconsistents were more prone to exhibit symptoms of individual unrest. Specifically, underrewarded inconsistents (high ethnicity-low occupation, high education-low occupation, high ethnicity-low income, high education-low income) were more prone to individual unrest. Overrewarded inconsistents did not show this pattern.

Job Satisfaction

It has been suggested by Kimberly and Crosbie (1967) that the dissatisfaction associated with status inconsistency is the result of discrepancies in cost and reward rather than of status inconsistency per se. They conceptualized status inconsistency in terms of position and ability discrepancies: difficult position-low ability, or easy position-high ability. They employed a laboratory experiment in which subjects were led to believe they had a certain level of ability according to their performance on

certain tests. Subjects were then free to choose tasks at defined levels of difficulty and tested for their satisfaction in how they performed these tasks. Kimberly and Crosbie found support for their general thesis that status inconsistency itself was not as highly associated with satisfaction in performance as was the cost-reward ratio.

In a study of professional social workers, Kolack (1968) found that compared to status consistents, status inconsistents were less likely to obtain satisfaction from their jobs, were less likely to view social work as their terminal occupation, and had generally more unhappy experiences in social work as a profession.

Research was undertaken by Kasl and Cobb (1971) to examine several different types of status inconsistency. Job satisfaction was found to be lowest for status incongruent males of the types education lower than occupation and education lower than perceived social class.

Erickson et al. (1972) found job satisfaction to be significantly related to status inconsistency, which was defined as job advancement being incommensurate with years of experience, age, and marital status. Those who were in step with their peers indicated greater job satisfaction, while those who were out of step with their peers indicated less job satisfaction.

Self-Esteem

Kasl and Cobb (1969a) found males who were characterized by status inconsistency of education higher than occupation or education higher than perceived social class were particularly prone to low self-esteem. But, status consistent males generally had the highest levels of self-esteem. In addition, they found both males and females reported lower self-esteem if they were from families characterized by status inconsistency between the mother and father. In addition, they found both families characterized by status inconsistency between the mother and father. This finding is similar in nature to Geschwender's (1968a) finding of a relationship between underrewarded inconsistents and individual unrest.

Voluntary Organizations

Lenski (1956b) found that status inconsistent persons participated less in voluntary relationships, have more inactive, long-standing, voluntary ties, and are more likely to establish and maintain voluntary ties for reasons other than sociability.

Similarly, in his study of professional social workers, Kolack (1968) found that status inconsistent social workers participated less in voluntary associations and that when they did participate they were far more likely to participate for "nonsociable" reasons.

Decision Making

In their study of decision-making groups, Exline and Ziller (1959) found that status inconsistency interfered with the free flow of communication and the development of satisfying interaction. They found that the group composed of status inconsistent individuals encountered considerably more difficulty in reaching consensus than the group composed of status consistent individuals. This finding supports Adams' (1953) earlier finding that status congruency within a group increased group cohesion, harmony, and social performance. It would also tend to make more tenable the suggestion of Zaleznik et al. (1958) that social leaders of the group are more likely to arise from conditions of high status congruency.

In an experimental study of group behavior, Brandon (1965) found status inconsistency to be a more accurate predictor of group tension and feeling of unfairness when consistency between the statuses was expected rather than when it was not. Brandon pointed out that under certain specified conditions, status inconsistency has a stronger effect than an examination of the effects of status inconsistency without specifying any conditions would indicate.

Peptic Ulcers

No association was found between peptic ulcers and

status inconsistency by Kasl and Cobb (1971). An association was found, however, between parental status inconsistency and ulcers (Kasl and Cobb, 1967) and between husband and wife status inconsistency and ulcers (Kasl and Cobb, 1969a).

Coronary Heart Disease

Shekelle et al. (1969) undertook a longitudinal study of coronary heart disease at the Hawthorne Works of the Western Electric Company in Chicago. It was found that incidence of coronary heart disease increased as the number of status inconsistencies increased. Subjects with four or five different types of status inconsistency were found to have six times the risk of coronary heart disease when compared to subjects with no status inconsistency.

Horan and Gray (1974) reanalyzed the Western Electric study data reported by Shekelle et al. (1969). They found that the utilization of multivariate statistical techniques allowing for multiple controls yielded very little association between status inconsistency and coronary heart disease.

In a reply to Horan and Gray, Shekelle (1976) admitted that status inconsistency accounts for a relatively small proportion of the variance in coronary heart disease. But, Shekelle (1976:86) maintained that "this is a common characteristic in research on the epidemiology of chronic

disease." He went on to say:

> The importance of a variable is determined not only by the magnitude of its coefficient in a regression equation, but also by its role in a theory of pathogenesis. (1976:86)

According to Shekelle, the notion that status inconsistency is associated with coronary heart disease is strengthened by the absence of a statistically significant relationship between social status itself and coronary heart disease. Shekelle (1976:87) maintained that:

> At best all we can now say is that the weight of evidence supports the hypothesis that men with certain behavior and social characteristics e.g., status inconsistency, the Type A behavior pattern, social mobility, have a higher risk of CHD than men who do not have these characteristics.

Rheumatoid Arthritis

In the study of status inconsistency and rheumatoid arthritis, Kasl and Cobb (1969a:276) list the following among their findings directly related to rheumatoid arthritis:

1. Women with rheumatoid arthritis are more likely to come from families where parents' marriage is status discrepant and the father is congruent on education versus occupation.

2. Men with rheumatoid arthritis are somewhat less likely to come from such status inconsistent families.

3. Several forms of status incongruence of the respondents themselves bore no relationship to rheumatoid arthritis in women and to rheumatoid arthritis in men.

4. Marriages where both spouses were healthy were less likely to be status discrepant than those marriages where one or the other of the spouses had rheumatoid arthritis.

5. Healthy husbands who were themselves status incongruent were more likely to have wives with rheumatoid arthritis than healthy husbands who were status congruent.

Kasl and Cobb (1971) obtained the same results for rheumatoid arthritis as they obtained for peptic ulcers. There was no association between the individual having rheumatoid arthritis and being status inconsistent (see three above). There was, however, an association between parental status inconsistency and rheumatoid arthritis (Kasl and Cobb, 1967) and between marital status inconsistency and rheumatoid arthritis (Kasl and Cobb, 1969b).

Morbidity

In a sample consisting of 10,621 white employed males, ages twenty-five through sixty-four, Wan (1973) found that as the level of status inconsistency increased, the level of morbidity also increased among the non-poor. This positive relationship, however, did not hold for the poor or for the sample as a whole.

Social Stress

Utilizing the three status variables of racial-ethnic status, educational status, and occupational status, Jackson (1962) attempted to analyze the effects of status

inconsistency on symptoms of stress as measured by a series of items drawn from the Health Opinion Survey. The sample, drawn from a national sample survey (Gurin et al. 1960), consisted of 2,460 adult males and females. The males were assigned their own status on each of the status variables while the females were assigned their own status on race and education, but they were given their husbands' occupational status. Jackson (1962:473) found the consistents to have the lowest percentage scoring high on symptoms of stress (16 percent). The moderately inconsistents had a slightly higher percentage (18 percent) scoring high. The sharply inconsistents with no like ranks had the next highest percentage (24 percent) scoring high on symptoms, and the sharply inconsistents with two rank deviates had the highest percentage (35 percent) scoring high on symptoms of stress.

In addition, Jackson (1962:479) found the strongest direct relationship between sumptoms of stress and the following status patterns:

1. Racial-ethnic rank superior to occupational or educational rank.
2. For males, occupational rank superior to educational rank.
3. For females, educational rank superior to husband's occupational rank.

Jackson also compared his findings to those of Lenski (1954) He found that the status inconsistency patterns associated with high stress scores, the high ascribed-low achieved

patterns (R/O and R/E), were not associated with political liberalism. The inconsistency patterns associated with political liberalism, the low ascribed-high achieved patterns (O/R and E/R), were not associated with stress. From this Jackson concluded that although status inconsistency is likely to have effects upon the individual, these effects may be manifest in different ways.

In another study, Jackson and Burke (1965) drew on Lenski's (1964) suggestion that statistical interaction effects of the status variables could be thought of as status inconsistency effects. Employing this method, they undertook to examine the effects of status inconsistency on stress through regression analysis. They made use of the same status variables: education, occupation, and racial-ethnic status. Several commentators (House and Harkins, 1975:399; Knoke, 1972:27) have pointed out the weakness of this type of methodology. Jackson and Burke themselves recognized that the use of interaction effects as a measure of status inconsistency was questionable. They stated that, "If significant deviations from the predicted rates occurred among inconsistent groups, the presence of status inconsistency effects could be inferred" (1965:577). Thus, they do not claim that interaction effects are status inconsistency effects. Rather, their claim is that the presence of interaction effects provides a basis for inferring the

presence of status inconsistency effects. Jackson and Burke admitted that "the test for interaction is not fully appropriate for our needs because it collects all deviations from the predicted scores into one interaction term" (1965:558). Evidently they were aware that while the interaction term may represent status inconsistency effects, it may also represent other types of effects.

Jackson and Burke developed two models. In model one, the three status variables provide a direct additive effect and terms representing status inconsistency are simply added to the model. This model leads to the conclusion that education and occupation are negatively related to symptom level, while racial-ethnic status is positively related to symptom level. All forms of marked status inconsistency were found to produce elevated symptom levels. In model two, additive terms for occupational and educational status were included along with interaction terms for occupation and education. But for racial-ethnic status, only a term representing high racial-ethnic status and low occupational or educational status along with a term representing low racial-ethnic status and high occupational or educational status was included. This model also led to the conclusion that educational and occupational statuses were negatively related to symptom level and that marked education-occupation discrepancies produce elevated symptom levels. Unlike the first model, however, the second model indicates

that high racial-ethnic status and low occupational or educational status have a much greater impact in increasing symptom levels than does low racial-ethnic status and high educational or occupational status.

Model one accounts for more of the variation in symptom level than does model two but at the cost of including two more variables. Jackson and Burke (1965:654) prefer model two since they

> find the assumption that inconsistency between high ascribed and low achieved status is especially likely to lead to a symptomization response, theoretically more palatable ... than the assumption that high racial-ethnic status is itself positively related to symptom level.

Employing the twenty-two item Langner index as their measure of stress, Meile and Haese (1969) examined the relationship between stress and status inconsistency as measured by educational and occupational discrepancies. They found an inverse relationship between occupational and educational levels and stress. They found no significant relationship between stress and status inconsistency regardless of whether the inconsistency was moderate or marked. They did find a significant relationship between the type of status inconsistency and stress. Specifically, they found that having an educational status higher than one's occupational status was associated with higher levels of stress. This finding is consistent with those of Geschwender (1968a) in connection with self-esteem. Thus an underrewarded type of status inconsistency has been found to

be related to individual unrest, self-esteem, and stress.

Jackson and Curtis (1972) in a catch-all study of the effects of status inconsistency examined the following dependent variables which happenened to include stress: formal social participation, informal social participation, political liberalism, satisfaction and symptoms of stress, intolerance, anomia, aspirations for son, leisure activities, self-perceptions, salience of rank, perceptions of responsibility, and legitimacy. They employed a sample consisting of male heads of household in six American cities. The methodology they employed was to compare the amount of variance in the dependent variables explained by a simple additive model of status rank with the amount of variance explained by a more complicated model, including status inconsistency as measured by the interaction effects of the status variables. Thus, the measurement of status inconsistency in this study is subject to the same weakness discussed earlier in relation to the measurement of status inconsistency in the study by Jackson and Burke (1965). When comparing the two models, Jackson and Curtis reasoned that if the more complicated model including status inconsistency does not explain a significantly greater amount of variance, then one should choose the simpler additive status ranks model on the grounds of parsimony. Their conclusion was:

> Most of the realtionships appeared to be additive. The interactions which did appear were not clustered with respect to any particular independent or dependent variables, usually varied in form from city to city, and did not resemble patterns expected on the basis of mobility or inconsistency theory. The findings suggest that multidimensional additive models adequately represent the effects of social stratification on the individual (Jackson and Curtis, 1972:701)

Mental Health

Tuckman and Kleiner (1962), using a sample of first admissions to a state hospital, constructed a "Discrepancy Index" as a predictor of schizophrenia. Utilizing education as an indicator of aspiration and occupation as an indicator of achievement, they found that the greater the discrepancy between aspiration and achievement, the greater the risk of schizophrenia. The findings of Tuckman and Kleiner, however, merit cautious interpretation. Since Dunham et al. (1966:223) conclude "that while schizophrenics in their developmental years are able to show fair educational achievement they are at a distinct disadvantage when they enter the job market."

Using a sample composed of 7,109 adults drawn from western Jerusalem between 1962 and 1964, Abramson (1966) attempted to examine the relationship between emotional disorder and status inconsistency.

Status inconsistency was measured as a discrepancy between occupational and educational ranking. Emotional

disorder was measured as a score of thirty points or higher on the Cornell Medical Index. Abramson found that the status inconsistents were considerably more likely to score high, indicating greater emotional disorder.

Kasl and Cobb (1971) utilizing both a sample drawn from a study of rheumatoid arthritis and a national survey sample, examined the relationship between status inconsistency and mental health. They found that status incongruent men reported more anger-irritation, more symptoms of acute physical illness, more psychological anxiety, more occasions of being fatigued, and more depression. The occupation higher than education type of status incongruent males consistently reported better mental health than those with education higher than occupation. The differences between these two types of status incongruent groups were statistically significant for anger-irritation, immobilization, depression, and selfconfidence. In terms of status incongruency between perceived social class and education, it was found that the incongruent group reported more frequent ang more depression,and anger-irritation,ad a greater re to change. This finding was particularly strong for the type of inconsistency in which education was higher than perceived social class in which case, mental health was "invariably" reported as being poorer than for the education lower than perceived social class. Kasl and Cobb (1971) believed that status inconsistency of the type of education

higher than occupation was somewhat more likely to occur among younger males, thus age would be an important variable to control. Therefore, they conducted separate analyses for males under forty-five and for males over forty-five. They found that there was no significant difference between the older and younger age groups; the level of association was basically unaltered. Thus, Kasl and Cobb (1971:78) concluded:

> It can be seen again that the congruent group has better mental health than either the incongruent groups, and that within the latter two, the E>O group has particularly poor mental health... Incongruent effects of education vs. perceived social class show a strong directionality: E<PSC men report better mental health than men who are classified as E>PSC.

These findings are in line with those reported earlier by Kasl and Cobb (1969a) concerning self-esteem; by Meile and Haese (1969) concerning stress; and by Geschwender (1968a) concerning individual unrest. An underrewarded type of status inconsistency was found to be related to all these factors.

In a study of mental patients in a state institution, Eitzen and Bair (1972) found that if status inconsistent patients were merely compared with status consistent apatients, both categories had almost the same probability of being diagnosed as schizophrenics. The education higher than occupation type of inconsistency had a disproportionately high probability of schizophrenia; furthermore, the greater the magnitude of differential between higher

education and low occupation, the greater the probability of a diagnosis of schizophrenia. But as Eitzen and Bair (1972:71) point out the direction of causality is unclear. In addition, these findings should be interpreted cautiously since as Turner et al. (1969) have indicated, samples drawn exclusively from state mental institutions tend to yield biased distributions on many variables. According to Turner et al. (1969:295), these biases "are likely to result in findings or hypotheses that may be seriously misleading in regard to the occurrence and etiology of schizophrenia."

Erickson et al. (1973) reported that status inconsistency, defined as being out of line with one's peers in terms of job advancement and marital status, was significantly related to poor mental health. They concluded that, "The degree to which a man is in step with his peers reflects his adjustment" (Erickson et al. 1973:400).

Baldwin et al. (1975) analyzed data on 11,325 psychiatric out-patients to determine the relationship between severity of psychiatric diagnosis and status inconsistency employing the statuses of occupation, marital status, and welfare status. They found support for the hypothesis that patients having high status inconsistency would receive more severe psychiatric diagnosis than patients having low status inconsistency. However, other status variables, such as race, sex, age, and occupation were found to be more powerful predictors.

In a study of 333 employed white males, House and Harkins (1975) found that for the older age group (age greater than forty-five), the status inconsistency pattern of high occupation, low education showed a significant relationship to psychological strain.

Sighting of Flying Saucers

Using data from a 1966 Gallup Poll, Warren (1970) analyzed the sighting of flying saucers in relation to status inconsistency. He found that the status inconsistents were the most likely to have reported seeing flying saucers. Specifically, he found that the underrewarded type, with either education or occupation high but income low were by far the most likely to have reported sighting a flying saucer. In answering the question: Just what do you think these flying saucers are? It was found that "status inconsistent persons who reported seeing UFO's are far more likely than other groups to define them as extraterrestrial vehicles," (Warren, 1970:603) rather than giving some more "acceptable" explanation such as meteors, weather balloons, or airplanes. Of the moderate inconsistents, 17.4 percent reported them as extraterrestrial vehicles, while 28.6 percent of the sharply inconsistents gave that type of response. "In fact, all such answers came from the status inconsistent respondents, and not from the status consistent saucer sighters" (Warren, 1970:603). Thus, Warren found

that, "it is not low income alone, but low income with moderate to high education or occupational status that produces a higher level of saucer reporting" (1970:602). From this finding he concluded:

> it is not, therefore, the uneducated, credulous or the uninformed individual who reports saucers. Rather, it is the individual whose reward structure is out of line with his investment. (Warren, 1970:603)

Summary

In this chapter an attempt was made to review the research which has been undertaken in relation to status inconsistency. Literature was reviewed which reported research on the relationship between status inconsistency and twenty different variables. These variables are very heterogeneous and represent diverse areas of human behavior. The commonality they seem to share is that most of them represent some type of deviant activity. The general contention of most status inconsistency research is that being status inconsistent is a stressful condition which affects the individual in a manner resulting in deviant behavior patterns.

Drawing on this line of reasoning, this research will investigate the contention that the stress generally associated with being status inconsistent has a negative effect on mental health.

CHAPTER 3
THEORY

The theoretical support for this work is derived principally from the perspective of distributive justice as delineated by Homans (1961). In order to make this general theoretical perspective more applicable to this particular research endeavor, portions of other theories will be included to enhance clarity and precision.

The preceding review of the literature enumerated research on at least twenty different variables in relation to status inconsistency. Almost all of these variables represent some type of "deviant" or nonnormative behavior. Thus, the general contention of status inconsistency research is that there is something about being status inconsistent which causes the person to engage in some type of deviant behavior. As Zaleznik et al. have said, "from persons of low status congruence we assume, expect, and often find a certain kind of 'trouble'" (1958:57).

Thus, the task of the theory section of this research is to explain why status inconsistency is distressing. The particular task, then, becomes one of explaining why status inconsistency would be expected to have a negative effect on mental health.

Symbolic Interactionism and Role Theory

Probably the most common theoretical approach utilized in status inconsistency research involves combining segments from the perspectives of symbolic interactionism and role theory. The supporters of symbolic interactionism maintain that the individual develops a self-concept based largely on the basis of how other people react to him. Cooley (1964) in his development of the concept of "the looking glass self" pointed out three basic steps in the formation of the self-concept.

1. The imagination of our appearance to the other person.
2. The imagination of his judgment of that appearance.
3. Some sort of self-feelings, such as pride or mortification, based on our imagined appearance and his imagined judgment.

In a similar manner, Mead maintained that the individual's development of his self-concept is dependent on the way in which his "significant others" and later the "generalized other" react to him (1972).

The supporters of role theory maintain that the reactions of others is to some extent dependent upon the statuses the individual occupies and the roles he plays in connection with these statuses. Linton (1936) and Hughes (1944) maintain that accompanying any given social status is a set of normative expectations. This set of expectations includes: expected rights and duties of persons occupying

the status as well as expected rights and duties of others towards that status.

Therefore, combining these two perspectives in relation to status inconsistency, it is concluded that if the statuses are inconsistent, then people will tend to be uncertain how to react to them. These uncertain or inconsistent reactions will also tend to have a negative effect on the individual's ability to maintain a stable self-concept since his "significant others" or his "looking glass self" reflects an inconsistent image or inconsistent reactions. The general contention, then, is that this lack of consistency results in a stressful condition with which the individual attempts to deal by engaging in some type of "deviant" or nonnormative behavior. For the purpose of this research, this stressful condition will be seen as having a negative effect on the person's mental health.

There are some problems with this type of theoretical approach to status inconsistency research. First, it is unclear which, if any, particular status the individual may adopt as his rank from which he will relate to others. It has been argued (Galtung, 1966) that the status inconsistent individual will tend to view himself from his highest status position and will expect others to view him from that same perspective. While others (Himmelfarb and Senn, 1969; Segal et al., 1970; and Laumann and Segal, 1971) argue that the individual evaluates himself according to an average of his statuses.

Second, and more important, this general theoretical approach does not adequately distinguish between two separate ways of viewing status inconsistency. The first view of status inconsistency is the one taken by most researchers, although it is usually not explicitly stated. This perspective views status inconsistency as a characteristic of the individual. Thus, according to the above theory, it is a characteristic of the individual, his self-concept, which is threatened, and a stressful condition results. The second view considers status inconsistency as a characteristic of a relationship. Mitchell (1964) maintains that status inconsistency research should be concerned with examining inconsistency within relationships, rather than inconsistency within the individual. According to Mitchell (1964:317) research designs for status inconsistency research should include status measures for both the subject and his role partners. Malewski (1966) like Mitchell, believed that status inconsistency should be examined within the context of a relationship and is characteristic of a relationship between two or more individuals rather than a characteristic of an individual. According to this view it is the inconsistent reactions of others which result in an individual stressful condition.

Although it is probably the most widely used theory in status inconsistency research, these weaknesses, along with a more adequate theoretical formulation from other sources,

which are more explicitly concerned with the statuses considered here, provide the reason for not utilizing this perspective as the primary theoretical support of this work.

Structural Functionalism

Even though it is usually not explicitly stated, the structural functional perspective on social stratification provides the basis for believing that status inconsistency might be stressful. In one of the classic works from the structural functional perspective, Davis and Moore (1945) argued that in order for society to insure that the most qualified people filled the most important positions (statuses) these positions must be highly rewarded. In other words, it is functional for society if positions are rewarded relative to the amount of effort (investment) required to properly fill those positions. Thus, Davis and Moore contend that unless positions requiring a great deal of work and training (investments) were highly rewarded, people would not put forth the effort to properly fill these positions, and society would suffer.

It is this basic theoretical reasoning from structural functionalism which leads to the expectation of status consistency as the usual or "normal" condition, and status inconsistency as the unusual or stressful condition. This tends to be especially relevant for the statuses employed in this analysis which utilizes occupational, educational, and

income status. There tends to be a high positive correlation between these statuses. That one obtains a high eductional status which enables him to obtain a high occupational status which combines to yield a high income status is common folklore in American society. As Hartman (1974) has pointed out, there are many dimensions in which status inconsistency may be assessed. The implications of status inconsistency are dependent upon the relative importance of the status dimensions being compared. The status variables employed here have been historically correlated in American society. In addition, Americans generally continue to expect and believe that education, occupation, and income should be commensurate. This is probably less true for many other variables which have been employed in status inconsistency research. For example, the expectation that education, occupation, and income should be commensurate with race or sex is declining in this society. But, most Americans would continue to support the view of Hodge (1962) that, "...education may be seen as the investment whereby 'occupational stock' is acquired and upon which income is the 'dividends.'" Thus, the theoretical questions of concern are as follows: What are the implications for the individual when the functional theory of stratification is not realized in his particular case? What is the effect for the individual when he is not rewarded relative to his investments? What is the effect

for the individual when American folklore is found to be invalid? Does this inconsistency of investments and rewards have a negative effect on his mental health?

In order to more adequately investigate this issue, the suggestion of Lenski (1956b), Blalock (1966), Geschwender (1968a), and Eitzen (1970b) to concentrate research on different types of status inconsistency rather than on the magnitude of status inconsistency has been adopted.

Distributive Justice

A theoretical perspective which fits the general approach outlined under structural functionalism is distributive justice as proposed by George Homans. According to Homans, "The rule of justice says that a man's rewards in exchange with others should be proportional to his investments" (1961:235). This general rule of distributive justice and its application to status inconsistency research is made clear by Zaleznik et al. in their discussion of Homan's work.

> In listening to the complaints of workers, one hears frequently such statements as "service counts too much or too little around here," "education counts too much or too little," "ability is not rewarded," "woman's place is in the home," "the youngsters are still wet behind the ears," "those foreigners don't know how good they got it here," "married employees are given preference over single employees," "brains don't count." In asking employees to elaborate upon these complaints they frequently come down to some explicit or implicit assumption of this sort: "My pay

> is 'not in line' with my age, skill, seniority, education, ethnicity, sex, responsibilities, marital status, etc., and this is not just..." According to Homans when the investments of an individual member or subgroup are higher than those of another, distributive justice requires that their rewards should be higher too. This is the "emaning" of "status congruence." It is a condition of equilibrium because it is a condition of "felt justice." Thus, complaints do not arise when status congruence exists in a person, group, or job becuase this condition is felt as "just" by all the members of the group. (1958:50-53)

Homans is careful to point out the relative nature of this balancing process between investments and rewards. The process by which men gauge this discrepancy between investments and rewards is a subjective one.

> We must not argue for a minute that people can meausre the rewards and costs of what they do in cardinal figures, but they surely do assess them in ordinal ones; they put the activities of different persons and subgroups in rank-order of rewards and costs. In these terms distributive justice among men is achieved when the profits of each are equal, in the sense that their rank-order on rewards is also their rank-order on costs. (Homans, 1961:242)

As previously noted, this particular research endeavor examines status inconsistency as a discrepancy between the levels of education, occupation, and income. A person's effort to obtain an education, and the work he does in his occupation are considered as his investments. The income he receives as a result of having made these two investments is considered as his reward. Thus, a person who ranks similarly in terms of investments and rewards would be

considered to be status consistent or in Homans' terms, as having experienced distributive justice. But, a person who ranks dissimilarly in terms of investments and rewards would be considered to be status inconsistent as having experienced distributive injustice.

This study will examine three main types of status inconsistency as it relates to mental health. These are:

1. The Underrewarded Type: which consists of those who are underrewarded relative to their investment.

2. The Overrewarded Type: Which consists of those who are overrewarded relative to their investment.

3. The Consistent Type: which consists of those who are consistently rewarded relative to their investment.

According to Homans' terminology, the consistent type has experienced distributive justice, while the underrewarded type and the overrewarded type have experienced distributive injustice. Although both the underrewarded and overrewarded types of inconsistency may lead to feelings of distributive injustice, they would not be expected to have the same results. As Homans pointed out:

> 'The more to a man's disadvantage the rule of distributive justice fails of realization, the more likely he is to display the emotional behavior we call anger.' And finally we argue that men are rewarded by the attainment of justice, especially when just conditions are rewarding in other ways. For instance, I am more likely to demand justice when justice would bring me more money than when it would bring me les. (Homans, 1961:232)

Thus, the theoretical perspective of distributive justice would predict that the underrewarded type of status inconsistency would be felt as the greater injustice. This would be experienced as the most stressful of the three and have the greatest negative effect on mental health. The overrewarded type of status inconsistency would also be felt to be unjust. But, the level of stress experienced is likely to be less, since, as Homans pointed out, the injustice favors the individual instead of penalizing him. Therefore, while still having a negative effect on mental health, the effect should be less than for the underrewarded type. The consistently rewarded type would be predicted to have experienced distributive justice which would produce little or no stress. They would be expected to have little or no negative effect on their mental health resulting from status inconsistency.

As the theoretical perspective is developed here, status inconsistency is considered to be a characteristic of an individual rather than a characteristic of a relationship. The frustration or stress experienced by being underrewarded is not peculiar to any specific relationship. The stress-inducing agent is not considered to be the individual's interaction with others who react inconsistently to his inconsistent statuses and thereby threaten his self-concept which is the contention of role theory and symbolic interactionism. Rather, the stress inducing agent

to be the frustration and injustice (stress)
ndividual within himself, from the experience
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Expectancy Congruence

son (1963) in his article concerning expectancy
e maintains that it is not status inconsistency in
hich is stressful. Malewski agreed with Sampson.

> In order to establish the incongruence of status it is not sufficient to point out, as is commonly done, that some factors of an individual rank much higher than others. One should also show reasons for maintaining that those differences are inconsistent with the normative expectations of the environment in which the given individual moves. (1966:304)

In an explicit test of expectancy congruence as a advanced by Sampson, Brandon (1965) found inconsistency between statuses of expected congruence to be a better predictor of feelings of unfairness and group tensions than is inconsistency between statuses that were not necessarily expected to be congruent.

The statuses employed in this research to measure status inconsistency meet the requirements of expectancy congruence as developed by Sampson. The common folklore assumption in this society is that increments in education are believed to make one more marketable for higher status occupations, which in turn combine to yield elevated levels of income, has been previously discussed. In addition, many commentators have noted the high correlation among education, occupation, and income (Broom and Jones, 1970:999; Hartman, 1975:708). The general expectation in this society, both objectively and subjectively, is that these statuses will be congruent. Therefore, conforming to the expectancy congruence discussed by Sampson provides further evidence for suspecting that status inconsistency, as viewed from the distributive justice perspective, results in a stressful condition which would have a negative effect on mental health.

Relative Deprivation

The relationship between status inconsistency (conceived of as discrepancies in investments and reward) and

distributive justice (as delineated by George Homans) has already been noted. Homans went on to point out, however, that "it is always relative deprivation that arises the question of distributive justice" (Homans, 1961:243). Thus, he is saying that it is not only the actual extent or degree of deprivation or inconsistency which results in feelings of injustice, but that these feelings of injustice are also relative to other factors. What are these other factors? There are probably several, but only two which are felt to be very important will be discussed.

In the first as has been previously noted, Sampson (1963) maintained the degree to which deprivation in the form of inconsistency was experienced would be relative to the extent to which the statuses involved were expected to be consistent in the society at large. Second, the amount of deprivation in the form of inconsistency which was experienced would be relative to wheter or not the individual himself perceived his investments and rewards to be discrepant regardless of the "objective" discrepancy between them. This point will be developed in more detail.

The reasons distributive justice would predict underrewarded inconsistents to be under more stress than overrewarded inconsistents have been previously noted. In a similar manner, from the perspective of relative deprivation one would expect the underrewarded to feel relatively deprived and the overrewarded to feel relatively undeprived.

As Runciman and Bagley have commented: "We should expect those of high education and low income to feel in general, a sense of relative deprivation, but those of low education and high income to feel relatively gratified" (1969:366).

The Predominant Process in the Relationship Between Status Inconsistency and Poor Mental Health

The preceding theoretical discussion has approached the relationship between status inconsistency and mental health from the perspective that status inconsistency is stressful for the individual and, therefore, has a negative effect on his mental health. Some (Dunham et al., 1966) have argued that the predominant process in the relationship may go the other way. It may be that having poor mental health results in the person being status inconsistent. This is based on the reasoning that regardless of what a person's educational attainment might be, if he has poor mental health he is more likely to have difficulty in obtaining and holding a job, especially a higher status job. Therefore, his occupational status is more likely to be suppressed and to fall below his educational status. His income level would be expected to accompany his occupational status. In an attempt to bring some clarity to this issue, two modified approaches to the relationship between status inconsistency and mental health have been utilized.

The First Test for the Predominant Process in the Relationship Between Status Inconsistency and Poor Mental Health

For the first modified approach to test this issue let us momentarily assume that those who argue that poor mental health results in status inconsistency are correct. If this is true, the next question is what particular types of status inconsistency are most likely to result from poor mental health? Dunham et al. (1966) maintain that individuals with poor mental health may function fairly adequately in the somewhat protective environment of the educational system. In fact, unless the mental incapacitation is severe they will be required by law to attain a number of years of education. Additionally, some may desire to remain in this protective environment and thereby attain education beyond the high school level. But when called upon to participate in the "real world" of the job market, they have greater difficulty in sustaining an acceptable performance. Therefore, even though they may have a moderate to high educational level, their occupational level tends to be somewhat suppressed. Their income level would probably tend to accompany their occupational level.

A measure of this type of status inconsistency was developed and labeled as the "impaired" type. The central characteristic of the impaired type is that occupational status is always lower than educational status. Following the reasoning stated above, if the primary relationship between status inconsistency and mental health was such

that poor mental health resulted in status inconsistency, then one would expect to find a strong relationship between the "impaired" type of inconsistency and poor mental health. Comparing the relationship between the impaired type of status inconsistency and mental health to the relationship between the underrewarded type of status inconsistency and mental health could give some indication as to which is the predominant process in the relationship between status inconsistency and poor mental health.

In this comparison the test would be to determine which type of status inconsistency was more highly associated with indicators of poor mental health. If the impaired type showed the stronger association, it would favor the argument hat poor mental health results in status inconsistency. If the underrewarded type showed the stronger association, it would favor the argument that status inconsistency is a stressful condition which may have a negative effect on mental health.

The Second Test for the Predominant Process in the Relationship Between Status Inconsistency and Poor Mental Health

The second modified approach involved the introduction of an intervening variable which would be expected to alter the relationship between status inconsistency and mental health. House and Harkins (1975) have pointed out most studies of status inconsistency have attempted to assess a direct relationship between status inconsistency and some

dependent variable. There has been a tendency to ignore intervening variables which might alter the relationship. They contend that the explanatory value of status inconsistency might be significantly improved if the specific conditions under which "particular discrepancies involving particular status dimensions" were specified (1975:407).

The intervening variable employed in this analysis was perception, or more specifically, perception of being underrewarded. Regardless of what the objective measures of the individual's investments and rewards might indicate, Does the individual perceive himself as underrewarded? Or, from the perspective of distributive justice, Does the individual think he is fairly or justly rewarded?

The theoretical importance of perception in relation to structural variables is well known. Probably one of the best-known statements in the sociological literature is W.I. Thomas' statement that, "If men define situations as real they are real in their consequences" (Leslie et al. 1973:188). In other words if a person defines a situation as being real (preceives it as being real), then that situation will have consequences or effects for him. W.I. Thomas explained it as follows:

> We must put ourselves in the position of the subject who tries to find his way in this world, and we must remember, first of all, that the environment by which he is influenced and to which he adapts himself, is his world, not the objective world of science--is nature and society as he sees them, not as the scientist sees them. The individual subject reacts only

> to his experience, and his experience is not everything that an absolutely objective observer might find in the portion of the world within the individual's reach, but only what the individual himself finds. (Janowitz, 1966:23)

In attempting to relate a stressful situation such as status inconsistency to mental health, it becomes important to consider whether or not the individual perceives the situation. In discussing the relationship between stresses and disease, Wolff noted the importance of the individual's perception of the stressful situation.

> The stress accruing from a situation is based in large part on the way the affected subject perceives it....it is not the particular nature of the forces, pressures and preferences that engender a threat to the individual in any particular society, but how they are perceived and the amount of conflict directly or indirectly engendered. It is not the specific behavior toward parents, power, possession, sexuality, the hours of work, or even the type of work or the amount of individual freedom of action, but it is the threat engendered by the culture which becomes pertinent to the development of stress with its ensuing protective reaction patterns and disease. (Wolff, 1953:10, 14-15)

Thus, Thomas has noted that in considering the effects of a situation on the individual one must take into account how the individual perceives the situation. In a similar manner Wolff noted that one must take into account how the individual perceives the stress in considering the effects of stress on his health.

Introducing the perception of underreward also

provides assistance in determining the predominant process in the relationship between status inconsistency and poor mental health. If one claims that it is an underrewarded type of inconsistency which has the greatest negative effect on mental health, as is done here from the perspective of distributive justice then one would expect perceived underreward to have a greater negative effect on mental health than nonperceived underreward. Since, according to Wolff, the perception of stress is an important factor in determining its effect. If one argues that poor mental health results in status inconsistency then the perception of underreward would be expected to have little impact on the relationship between status inconsistency and mental health. If a variable does not have an effect, then the perception of that variable should also not have an effect. As both Thomas and Wolff have indicated, it is how one perceives the supposed causal factor which is important.

Thus, the test would be to introduce perception of underreward into the relationship between status inconsistency and mental health. The first argument would be favored if perception of underreward resulted in an increased negative effect on mental health. The second argument would be favored if the perception of underreward had little effect on the relationship between status inconsistency and mental health.

Social Stress

Central to the sociological approach to illness is the notion that social factors may act as etiological agents in the disease process. Chief among these social factors which have received attention in this respect has been social stress. In relating the social model of illness to the medical model, Freeman (1960) pointed out what he refers to as the "man-environment relationship" which he said occurred at three levels and affects health and illness. The three levels discussed are:

1. The Physical: in which man contends with the "elements," light, dark, hot, cold, humidity, etc.

2. The Biological: the major consideration here being microorganisms. This has been the area which has received the major portion of medical attention.

3. The Social: as man interacts with the elements, with plants, animals, and microorganisms, so man also interacts with his fellow man. The effects of this area of interaction on health are just beginning to be appreciated (Freeman, 1969:8485).

Freeman argued that in all three of these "man-environment relationships" there is the presence of stress and strain which can have effects on the health or illness of the individual. Thus according to Freeman, there may be physical stressors, biological stressors, and social stressors.

In examining the relationship between social stress and

disease, Wolff discussed stress in terms of mechanics.

> ...'stress' is the internal or resisting force brought into action in part by external forces or loads. The change in size or shape of the member as a result of the application (2) (Maurer, 1917). The load in biology becomes the stimulus or the external environment agent. Loads may be considered as a) sustained and of low or moderate intensity;*
> b) repeated and of low or moderated intensity; and c) brief but of high intensity.
>
> The stress becomes the interaction between external environment and organism, with the past experience of the organism as a major factor. The strain is the alteration or deformation in the organism that then ensues. The magnitude of the latter and the capacity of the organism to withstand the strain determine whether or not there will be re-establishment of homeostasis or a 'break,' with disruption and death.
>
> ...the impact of man on man may be as seriously traumatic as the assaults of microorganisms, climate, chemical and physical forces. Disruptions, hindrances and threats, stemming from the interaction of man and man, both singly and in groups, evoke adaptive responses indistinguishable from those set off by other environment forces. (Wolff, 1953:5-6)

Thus, Wolff appears to be in basic agreement with

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*It should be noted that the stress associated with the under-rewarded type of status inconsistency is probably the type which Wolff said "...may be considered as a) sustained and of low or moderate intensity..." (Wolff, 1953). This is based on the reasoning that inconsistency between the status of education, occupation, and income are likely to persist over a number of years and thus, is of a sustained nature. Also, for most people, stress of this type is not likely to be of a high intensity. For most, it will probably be experienced as a more or less constant nagging feeling of frustration, unfairness or injustice.

Freeman. Both would maintain that just as physical and biological factors may act as agents of stress, so may social and cultural factors. They also agree that stress is a force acting on the organism and that strain is the result of that force, the change or tissue damage.

Wolff illustrated his basic argument with the following example. For both arms, the tone of the small blood vessels of a subject's skin was tested for their capacity to hold the contents of the blood. The left arm was then struck. This resulted in the appearance of a red area which is associated with a fall in capillary tone. The right arm was not struck but a similar capillary change occurred. The experiment was repeated only this time a mock blow was delivered which stopped short of actually touching the subject's arm. The anticipated threat, however resulted in capillary changes which were similar to those which occurred when the subject was actually struck. The experiment was repeated only this time the subject was informed that the blow to be delivered was a mock blow which would stop short of actually touching him. This resulted in no observable change in capillary tone (Wolff, 1953:5). In discussing Wolff's theoretical perspective as illustrated in this example, Mechanic has noted that:

> Wolff argues, as his basic theoretical assumption that the bodily protective responses pattern to a physical blow has been generalized to a symbolic blow. It is his contention that when such response patterns occur with great frequency in response to threats to status and other

> forms of stress, they result in symptom formation and tissue damage. (1968:315)

Both Mechanic and Wolff have noted that these symbolic blows or threats may take many different forms.

Mechanic has conceptualized these symbolic blows or threats in terms of demands made on the individual.

> It appears that it is useful to conceive of stress as characterizing a discrepancy between the demands impinging on a person --whether these demands be external or internal, whether challenges or goals--and the individual's potential responses to these demands. (Mechanic, 1968:301)

This type of approach draws heavily on the work of W.I. Thomas, who emphasized that the crisis lies not in the situation itself but in the interaction between the situation, the individual's perception of the situation, and the individual's resources for dealing with the situation (Mechanic, 1968:302). Thus, in discussing social stress, consideration should be given to normative expectations, excessive demands, perception of demands, inadequate resources, legitimacy of demands, and the absence of alternatives.

This multiplicity of interacting factors partially explains why it has so often been noted that what is stressful for one individual may not be stressful for another. As Simmons and Wolff have observed:

> The stress accruing from a situation is based in large part on the way the affected subject perceives it: perception depends upon a multiplicity of factors including the genetic equipment, basic individual needs and longings, earlier conditioning influences, and a host of life experiences and cultural pressures. (1954:25)

This raises an important question. If the conditions which result in stress are not constant, but may vary from individual to individual how can researchers go about studying social and cultural factors which may act as stress-inducing agents in the disease process? In responding to this issue Basowitz et al. (1955) have noted that certain stimuli may be considered as stress inducing agents regardless of the responses they may evoke in any particular individual. They are considered as stressful "because of their assumed or potential effects, although we well know that in any given case the organism's adaptive capacity, threshold, or previous learning may preclude any disturbance of behavior" (Basowitz et al. 1955:7) In a similar manner, Mechanic has maintained that,

> ...the designation of certain circumstances as stress situations if based on an assumption: the investigator intuitively selects various aspects of the physical, social, and cultural environments that he assumes are likely to lead to experiences of discomfort for most people living within some designated group, the discomfort being reflected by both social and psychological responses. (1968:297)

injustice which may be a stress inducing agent which would have a negative effect on mental health.

Theoretical Propositions

The research reported here employed structural functionalism as the broad theoretical perspective. Structural functionalism places emphasis on the structure of social organization and how the structure functions for the effective operation of the social system. Davis and Moore (1945) have amply presented the structural functional perspective on social stratification. From this view it is functional for the effective operation of a social system for the most difficult positions (statuses) requiring the greatest effort and training (investments) to be highly rewarded in order to insure that the most qualified people occupy those positions. This theoretical perspective provides the basic theoretical framework for status inconsistency research. The notion that education, occupation and income should be consistent is a derivative of structural functional theory, even though in some cases it may not be explicitly recognized.

Within the broad structural functional perspective the particular approach utilized in this research is distributive justice as delineated by Homans (1961). The reason for adopting this particular approach was because of its primary emphasis on proportionality. The central core of the distributive justice perspective is that rewards should be

proportional to investments, and if they are not it is likely to be stressful for the individual. Different types of investment-reward discrepancies, however, are likely to have different effects. Those overrewarded relative to their investments will perhaps feel some guilt, but they are also likely to feel as though they have beaten the "system," they have succeeded. Those underrewarded relative to their investments are more likely to feel as though the "system" has beaten them. They are more likely to experience stress in the form of frustration, anger and resentment.

The distributive justice perspective was supplemented by the perspectives of expectancy congruence and relative deprivation. The perspective of expectancy congruence points out it is not meaningful to talk about status inconsistency in relation to any collection of statuses. Rather, status inconsistency becomes meaningful only in relation to a set of statuses which according to the general beliefs of the society are supposed to be consistent. It was noted that the three statuses employed in this analysis (education, occupation and income), were both objectively and subjectively expected to be consistent in this society. The perspective of relative deprivation was introduced to indicate that there are factors other than the absolute level of deprivation or inconsistency which affect the relationship between status inconsistency and mental health.

There were two such factors which were given consideration. First, the effects of status inconsistency probably vary relative to the extent to which the statuses involved were expected to be consistent; this was dealt with by selecting statuses which were generally expected to be consistent. Second, teh effects of status inconsistency probably vary relative to the degree to which it is perceived by the individual.

Drawing on the broad theoretical perspective of structural functionalism as developed through distributive justice and supplemented by expectancy congruence and relative dprivation the following working propositions were advanced.

1. The underrewarded type of status inconsistency is associated with poor mental health.

2. The overrewarded type of status inconsistency is not associated with poor mental health.

3. The relationship between status inconsistency and mental health identified in the first two propositions, will continue to exist after controlling for the effects of race, sex, SES, age, and marital status on mental health.

4. The predominant process in the relationship between status inconsistency and poor mental health is that the underrewarded type of status inconsistency has a negative influence on mental health, rather than poor mental health influencing the development of status inconsistency.

These working propositions provide the context for the organization and presentation of the data. The methodology employed in the analysis of these propositions is presented in the next chapter.

CHAPTER 4
METHODOLOGY

The preceding chapter presented the theoretical reasoning for expecting status inconsistency to be a stressful condition which could have a negative effect on mental health. The purpose of this chapter is to explain the methodological procedures by which the propositions developed in the previous chapter were tested. Before this specific task is undertaken, however, attention must be given to some of the general methodological criticisms of research in status inconsistency and how this particular study has dealth with those criticisms.

Methodological Criticisms of Status Inconsistency Research

In his original research on status inconsistency and political liberalism, Lenski (1954) utilized the following procedure to measure status inconsistency. First, for each of the four social statuses (education, occupation, income and ethnicity) considered in the research, a cumulative frequency distribution was calculated. Then Lenski proceeded by "taking the square root of the sum of the squared deviations from the mean of the four hierarchy scores of the individual and subtracting the resulting figure from one hundred" (1954:407).

This procedure yielded possible scores ranging from zero to one hundred with high scores indicating high status consistency and low scores indicating low status consistency.

One of the major shortcomings of this type of measure is that it does not allow for direct examination of different types of status inconsistency. Since the major concern of this research is to compare the mental health of people characterized by various types of status inconsistency, a measure which does not facilitate such a comparison would not be useful.

It should be pointed out that in his original paper Lenski (1954) did examine various types of status inconsistency, but not by using the measure of status inconsistency explained above. In examining the different types of status inconsistency Lenski (1954: 410-11) compared the four social statuses involved in the inconsistency measure two at a time. He considered a difference of 30 or more points in the cumulative frequency distribution of any two status hierarchies to represent a status inconsistency between those two statuses. The status which is at least 30 points higher in the cumulative frequency distribution is, of course, the high status, and that which is at least 30 points lower is the low status.

Berry and Martin (1973) have criticized this type of approach for comparing different types of status inconsistency. The major problem to which Berry and Martin devoted the largest portion of their effort was what they referred to as the "topological fallacy." This methodological problem has two primary ingredients, the problem of the inflated sample size and the problem of meaningless comparisons. The problem of the inflated sample size arises when a complete status profile analysis is not employed and a difference in any two status hierarchies is considered to constitute a case of status inconsistency. In a complete status profile analysis, all the social statuses considered in the status inconsistency measures are compared at the same time, rather than two at a time. This procedure avoids emphasizing the extreme (highest and lowest) social statuses. Thus, in a complete status profile analysis, all the status inconsistencies involved are considered in a synchronous manner, allowing the effects of all the social statuses to be assessed simultaneously.

The problem of the inflated sample size was pointed out by Berry and Martin in Lenski's (1954) original paper in which he had 166 status inconsistent individuals in the sample, but made comparisons on the basis of 598 status inconsistencies. Obviously, some of the individuals

in the sample were utilized in more than one of the comparisons.

This leads directly to the second issue, the problem of meaningless comparisons. Since many of the inconsistencies compared are characteristics of the same individual, "the inconsistencies cannot be considered to be independent events" (Berry and Martin, 1973:27). Because the status inconsistencies measured according to the Lenski method are not independent and not mutually exclusive, statistical analysis would be misleading (Morrison, 1976:2). Therefore, this procedure was not used in this research.

Lenski (1964) later proposed another method of measuring status inconsistency. He utilized a two-by-two table, breaking statuses into categories of high and low. According to the Lenski method, one would compare the sum of the low-high and the high-low diagonal with the sum of the high-high and the low-low diagonal. If the two diagonal sums were not equal, then this interaction effect would be attributed to status inconsistency.

Hyman (1966) criticized Lenski's (1964) methodology for measuring status inconsistency as too conservative, arguing that Lenski's method may be too "broad" and, further, that it fails to specify the particular type of status inconsistency which produces stress. It merely indicates that at least one type of status inconsistency has no effect. Secondly, as Hyman pointed out, if different

types of status inconsistency are associated with the dependent variable in opposite directions they may cancel each other when they are summed. A comparison of the summed diagonals would show them to be equal, and by the Lenski method one would conclude that no status inconsistency effects were present. A closer examination of the data, however, could reveal that those in the high-low cell were significantly different from those in the low-high cell with respect to the dependent variable.

Thus, Hyman criticized Lenski's method for either (a) failing to detect the particular type of inconsistency which produces an effect or (b) failing to detect any inconsistency effect when one is actually present. Therefore, according to Hyman (1966:128), "If Lenski's test indicated that a status inconsistency effect is present in a table, then some such effect is indeed there." However, "If the Lenski approach indicates the absence of a status inconsistency effect, one may nevertheless be present." Because of these weaknesses, this method of measuring status inconsistency was deemed unacceptable for this research.

Berry and Martin (1972) have indicated some of the problems associated with controlling for the effects of socioeconomic status (SES) in status inconsistency research. A typical procedure utilized in status

inconsistency research in controlling for the effects of SES, has been to show that the status inconsistents did not differ significantly from the status consistents with respect to SES. But as Berry and Martin (1972:86) pointed out, "the fact that two or more groups have the same mean scores on socioeconomic status says nothing about whether the effects of the status dimensions have been controlled at the individual level."

This research avoided this issue by controlling for SES in a different manner. Scores on SES were entered as a continuous independent variable along with status inconsistency as an independent variable in a regression equation to predict mental health scores. It should also be noted, however, that in this analysis the various types of status inconsistency were found to have significantly different scores on SES, as indicated in Table 8. The association between low SES and poor mental health has been well documented (Dohrenwend and Dohrenwend, 1969). As explained in the discussion of Table 8, the fact that the status inconsistent groups scored differently on the mental health measure than one would predict from a knowledge of their SES scores indicates that status inconsistency had an effect independent of SES.

Berry and Martin (1972) commented further concerning the relationship between SES and status inconsistency.

It was their contention that this relationship was of such a nature that:

> (1) any given socioeconomic score limits the range of consistency scores possible and (2) the two vary in a curvilinear fashion so that individuals with either high or low socioeconomic scores can have only high consistency scores and it is only individuals with middle socioeconomic scores who can possibly have low consistency scores. (Berry and Martin, 1972:87)

Their first point, while possibly valid, does not constitute a real criticism of a status inconsistency or SES measure. The fact that two or more measures have the same possible range indicates nothing about the statistical independence or dependence between the measures. In fact, to some extent, having the same possible range may be advantageous in terms of facilitating the conceptual ease of comparability.

While their second criticism does apply to many measures of SES and status inconsistency, it does not as readily apply to the SES and status inconsistency measures employed in this analysis. This is elaborated further in the discussion of Table 8, which demonstrates that, as measured in this analysis, all five SES groups, ranking from low to high SES, were represented in each of the status inconsistency types.

Another problem in status inconsistency research which has received attention from several sources

(Blalock, 1966; 1967a, 1967b; 1967c; 1969; Duncan, 1975a; 1975b) is the "identification problem." In status inconsistency research, the identification problem arises when one attempts to develop a structural equation model. The identification problem is a result of having too many unknowns for a unique solution to the simultaneous equations. As Blalock (1967b:790) noted, the identification problem develops when one or more or the independent variables is a direct function of some of the other independent variables. As a result, a unique solution cannot be identified. How identifiable solutions can be obtained was given as follows by Blalock:

> The necessary conditions for identification can be stated rather simply. We write a (linear) equation for each variable that is dependent on any of the other variables. In order for the coefficients in a given equation to be identifiable, the number of variables excluded from this equation must be at least equal to one less than the number of equations. This criterion can be expressed in another equivalent way. Referring to variables that are not dependent on any of the others as 'exogenous,' and labeling the remainder as 'endogenous,' the number of endogenous variables appearing in any given equation cannot be greater than one more than the number of exogenous variables left out of this equation. (1966:57)

As previously noted, however, the identification problem, as discussed here, arises in status inconsistency research when one attempts a structural equations

approach. Since that approach is not taken in this research, the identification problem is not a major issue. This research utilizes a regression analysis type of approach, and as Blalock has noted:

> Whenever one uses a set of simultaneous equations to provide theoretical models of causal processes, he can generally expect to encounter identification problems because there may be more unknowns than pieces of empirical information for estimating the parameters. Such identification problems do not arise on simple prediction problems, where one uses a simple regression equation to predict to a single dependent variable . . . (1967:792)

There are, however, two issues related to obtaining identifiable coefficients which are a relevant concern in regression analysis. When multicollinearity is high or singularity is present it becomes impossible to obtain identificable coefficients. The problems associated with multicollinearity and singularity also have major implications in regression procedures. If multicollinearity is high or singularity is present the results obtained from regression analysis may be misleading. These two issues are discussed in greater detail in a later section dealing with the control variables and provide a statistical reason for employing SES as a control variable.

The Data

The data for this analysis were obtained by combining two epidemiologic field surveys collected between 1970 and 1973 in counties in central and north central Florida. This was done for the purpose of increasing the sample size. In addition to the statistical advantage obtained from a large sample when employing multivariate statistical techniques, two other considerations supported the use of a large sample. First, the entire sample was not utilized; a subsample consisting of all full-time employed subjects was selected. Nelson (1973) has pointed out the methological hazards associated with including persons who are not employed full-time in studies of status inconsistency. Regardless of the particular reason for their not being employed full-time, complications arise in assigning them scores on income, and especially on occupation. The allocation of a rank by some type of arbitrary method introduces unknown confounding effects. When full-time employed people are selected, the probability of their having complete scores for all three variables (education, occupation and income) is greatly increased. Second, a large sample increases the likelihood that all the various types of status inconsistency to be examined will be represented. The combined sample consisted of 3674 cases, but when the full-time employed people were selected, a working sample of 1619 cases was

retained. As a result of missing values on some of the variables, this sample size was further reduced to 1472 cases.

One of the two component samples came from the project "Evaluating Southern Mental Health Needs and Services" (NIMH Grant 15900). For a detailed description of this sample see Warheit et al. (1973b). The other sample came from the project "Southern Health and Family Life Studies" (NIMH Contract HSM 42-73-9 OC). For a detailed description of this sample see Bell et al. (1974).

Each of these samples was drawn by means of a systematic probability sampling procedure based on an enumeration of households provided by tuility services and supplemented by area sampling. The Kish (1965) method for determining the particular respondent within a household to be interviewed was also utilized for each sample. When both samples were compared to the 1970 census of the counties from which they were selected, they were found to be representative in terms of sociodemographic characteristics.

Measuement of Status Inconsistency

When utilizing regression analysis in status inconsistency research, one of the most common methods employed

for measuring inconsistency is to take the interaction effects of the status variables as an indication of status inconsistency. But, as was previously noted, several researchers have pointed out the weakness of this type of approach (Jackson and Burke, 1965; Hyman, 1966, Knoke, 1972; House and Harkins, 1975). The problem is that there may be inconsistency effects which are not revealed by the interaction effects of the status variables. For this reason, the utilization of the interaction effects of the status variables, as a measurement of status inconsistency, was considered to be an unacceptable approach for this research.

The method utilized for measuring the independent variable of status inconsistency in this research was developed by the United States Bureau of the Census (1967). This procedure yields the 13 types of status inconsistency listed in Table 1. These 13 categories of status inconsistency were collapsed according to three different sets of criteria to yield three different measures of status inconsistency, listed in Tables 2,3, and 4. Attention will first be given to the procedure utilized to obtain the 13 types of status inconsistency, since the other three measures simply involve different ways of collapsing the 13 status inconsistency types.

The three status varibles of education, occupation

and income were measured as follows. The scores for education utilized in this analysis were obtained by selecting the midpoint of each education category from a cumulative percentage distribution of the years of school completed by residents of the United States. The scores for income were obtained in a similar manner. The midpoint of each income category was selected from a cumulative percentage distribution of the income of residents of the United States (U.S. Bureau of the Census, 1973a:368-79). This procedure yielded scores for education and income which ranged from zero to 100 and represented the relative cumulative percentage distribution of that level of education or income in the United States. For example, a person who had graduated from high school but had obtained no further formal education was assigned an education score of 63. This indicated that according to the 1970 census the highest formal educational attainment of 63% of the population was the same as this individual, a high school graduate. The same procedure and interpretation applies to the income scores.

The occupation scores were obtained according to the following method:

> The detailed occupations were scored according to the combined average levels of education and income for the given occupation. Thus, the score obtained is an average for the occupation and it contributes an

> independent* effect to the total socioeconomic score, which includes also the individual's actual educational and income levels. Using the number of workers in each occupation, a cumulative percentage distribution was obtained. The score for a given occupation was then determined by taking the midpoint of the cumulative percentage interval for that occupation (emphasis added). (U.S. Bureau of the Census, 1967:XI)

The occupational scores obtained by this method were taken from Nam et al. (1975), and they differ in two respects from occupational scores utilized previously. First, these occupational scores were calculated on the basis of the 1970 U.S. census rather than the 1950 U.S. census. Second, these scores were calculated for both males and females, rather than just males. These differences make two important contributions. First, the occupational scores based on the 1970 census are likely to provide a better respresentation of the data collected between 1970 and 1973 than are scores based on the 1950 census. Second, having scores for both males and females

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*It should be noted that the independence referred to here is mathematical independence, not statistical independence. It would be contradictory to claim that a measure which truly measured occupational status was statistically independent of income and educational attainment. This occupational measure is mathematically independent in the sense that the occupation scores for the individual are not a mathematical function of the individual's income or education scores. The score for any particular occupation represents the average income and education level for everyone in the civilian labor force who claims that particular occupation.

allows the inclusion of females in the analysis. They are assigned a score which is valid for females as well as males, as opposed to a score based on males in the civilian labor force, or their husband's occupation, which has been common proactice in the past. The education, occupation and income scores employed in this analysis are provided in Appendix A.

Hartman (1975:715) has criticized the method developed by the United States Bureau of the Census for measuring status inconsistency because the occupation score is based on a combined average of the income and education scores. While what he said is true as far as he goes, it does not reveal the entire procedure. The occupation score is an average of the education and income score, but not at the individual level. As Nam et al. (1975) indicated, the occupational scores are an average of the income and education level of all the people in the civilian labor force who are in that particular occupation. Based on the education, occupation and income scores provided in Appendix A, the following is an individual example demonstrating that the individual's occupation score is not a mathematical function of his education and income scores. An individual carpenter who has an eleventh grade education would have an education score of 37. If his income for the last year was $5500, his income score would be 60. His

occupation score, 42, is the average of the education and income scores for all carpenters in the civilian labor force (Nam et al., 1975:573). This occupation score of 42 is obviously not an average of his education and income scores (37 + 60 = 97 ÷ 2 = 48.5). In this way, the individual's occupation score contributes an effect which is mathematically independent of his income and education scores. Assigning the average score of a collectivity who share the same occupation to an individual who claims that occupation is a valid procedure, since as Knoke (1972:28) has noted, "Occupational status is a collective phenomenon which an individual may tap by virtue of his membership in the group." Additionally, this occupational status measure represents a behavioral as opposed to an attitudinal measure. Rather than assessing attitudes concerning the prestige of the occupation, the behavior towards the occupation is assessed in terms of how the occupation is rewarded (income) and the average entry and functioning levels of training (education) required.

Hartman (1975:717) has also objected to the use of percentile distributions for the calculation of status inconsistency on the basis that it ties the measure to a particular sample and, therefore, limits comparability. In making this criticism he seems to be assuming that

the percentile distributions are based on some specific "local" sample. The percentile distributions employed here, however, are based on "national" figures. This does not limit comparability since anyone wishing to undertake a comparable study could obtain the same percentile distributions from the U.S. Bureau of the Census.

Thirteen Status Inconsistency Types

The 13 status inconsistency types which appear in Table 1 were obtained by the following procedure utilizing the education, occupation and income scores described previously.

A. If the score between the highest and lowest scores for education, occupation and income was 25* or less, code 1 in Table 1 was assigned. Code 1 is the consistent type, indicating that as measured by this procedure no status inconsistency exists.

B. Code 2,4, or 6 from Table 1 was assigned if the

*The original census report used a score differential of 20 points, rather than the range of 25 points which is used here. Lenski, who maintained that status inconsistency effects "result only from marked or pronounced inconsistencies of status," employed a 30 point differential (Lenski, 1956a:369). The 25 point differential utilized here represents a compromise between the two. Additionally, it represents one-fourth of the possible range of variation in the scores, and thus is substantial enough that intuitively it would seem to represent a noticeable difference, without being so drastic as to select only very unusual cases. As Kasl and Cobb (1971:3) have pointed out, the exact cutting point, "which determines the relative proportions of congruent or incongruent subjects, has to be necessarily rather arbitrary."

range between the highest and lowest scores for education, occupation and income exceeded 25, while the range between the middle and lowest scores was 25 or less, but less than the range between the highest and middle scores. This indicates that two of the scores were consistent, but one score was inconsistent by being at least 25 points higher than the lowest score and having a greater range between the high and middle score than between the low and middle score.

1. Code 2 was assigned if the income score was the inconsistent score which was high.
2. Code 4 was assigned if the education score was the inconsistent score which was high.
3. Code 6 was assigned if the occupation score was the inconsistent score which was high.

C. Code 3,5 or 7 from Table 1 was assigned if the range between the highest and lowest scores for education, occupation and income exceeded 25, while the range between the highest and middle scores was 25 or less, but less than the range between the middle and lowest scores. This indicates that two of the scores were consistent but one score was inconsistent by being at least 25 points lower than the highest score and having a greater range between the low and middle score than between the high and middle score.

1. Code 3 was assigned if the income score was the inconsistent score which was low.
2. Code 5 was assigned if the education score was the inconsistent score which was low.
3. Code 7 was assigned if the occupation score was the inconsistent score which was low.

D. Code 8,9,10,11,12 or 13 from Table 1 was assigned if the range between the highest and middle scores and the range between the middle and lowest scores each exceeded 25 points. This indicates that all three scores were inconsistent, with at least 25 points between the highest and middle scores and at least 25 points between the lowest and middle scores.

1. Code 8 was assigned if all three scores were inconsistent and the occupation score was the highest score while the income score was the lowest score.
2. Code 9 was assigned if all three scores were

inconsistent and the occupation score was the highest score while the education score was the lowest score.

3. Code 10 was assigned if all three scores were inconsistent and the education score was the highest score while the occupation score was the lowest score.
4. Code 11 was assigned if all three scores were inconsistent and the education score was the highest score while the income score was the lowest score.
5. Code 12 was assigned if all three scores were inconsistent and the income score was the highest score while the education score was the lowest score.
6. Code 13 was assigned if all three scores were inconsistent and the income score was the highest score while the education score was the lowest score.

(U.S. Bureau of the Census, 1967:X-XI)

The above procedure resulted in the production of the 13 status inconsistency types which appear in Table 1.

This listing constitutes the 13 basic types of status inconsistency from which all the measures of status inconsistency utilized in this research are constructed. It should also be noted that this method has avoided the "topological fallacy" criticized by Berry and Martin (1973), in that it does represent a complete status profile analysis for the statuses of education, occupation and income. All three statuses are represented in each of the 13 status inconsistency types in Table 1. These 13 basic status inconsistency types are collapsed in three different ways to produce three separate measures of status inconsistency. In all three of these measures, however, the problems associated with not having a complete

TABLE 1. THIRTEEN STATUS INCONSISTENCY TYPES

1.	(E O I)	All three components consistent*
2.	(I/O E)	Occupation and education consistent; income high
3.	(O E/I)	Occupation and education consistent; income low
4.	(E/O I)	Occupation and income consistent; education high
5.	(O I/E)	Occupation and income consistent; education low
6.	(O/E I)	Education and income consistent; occupation high
7.	(E I/O)	Education and income consistent; occupation low
8.	(O/E/I)	All inconsistent; occupation highest, income lowest
9.	(O/I/E)	All inconsistent; occupation highest, education lowest
10.	(E/I/O)	All inconsistent; education highest, occupation lowest
11.	(E/O/I)	All inconsistent; education highest, income lowest
12.	(I/E/O)	All inconsistent; income highest, occupation lowest
13.	(I/O/E)	All inconsistent; income highest, education lowest

*The table heading is stated as Thirteen Status Inconsistency Types, yet the first type listed is a consistent type rather than an inconsistent type. This is done in order to provide a consistent type with which to compare the inconsistent types. In this analysis, all the tables which report status inconsistency types contain one consistent type with which the inconsistent types may be compared.

status profile analysis have been avoided, since each of the 13 component types which were collapsed to formulate the three measures constituted a complete status profile.

Three Status Inconsistency Types

The first reformulation of the 13 status inconsistency types provided for the construction of the basic underrewarded, overrewarded and consistently rewarded types of status inconsistency which were discussed in the theory section in relation to distributive justice. Education and occupation were considered as investments and income as the reward for these investments. This theoretical reasoning led to collapsing the 13 types of status inconsistency listed below in Table 2.

TABLE 2. THREE STATUS INCONSISTENCY TYPES

1.	The Underrewarded Type - includes from Table 1 types: 3(O E/I), 4(E/O I), 6(O/E I), 8(O/E/I), 9(O/I/E), 10(E/I/O), 11(E/O/I).
2.	The Overrewarded Type - includes from Table 1 types: 2(I/O E), 5(O I/E), 7(E I/O), 12 (I/E/O), 13(I/O/E).
3.	The Consistent Type - includes from Table 1 type: 1(E O I).

It should be noted that in the underrewarded type income

is never the high status variable, while in the overrewarded type income is always either the high status variable or tied for high with one other variable and never appears as the low variable. Of course, in the consistent type all three are consistent. Thus, in the underrewarded type the reward variable is always the low variable; in the overrewarded type the reward variable is always the high variable. In the consistent type, the investment and reward variables are consistent.

Four Status Inconsistency Types

The second reformulation of the 13 status inconsistency types provided the inconsistency measure for the first test of the predominant process in the relationship between status inconsistency and poor mental health discussed in the theory section. As previously noted, Dunham et al. (1966) maintained that status inconsistency in which educational status was higher than occupational status was the type of inconsistency which was most likely to be a result of poor mental health. This was based on the premise that the educational system constitutes a "semi protective" environment in which individuals with poor mental health may function adequately. When compelled to compete in the "real world" of the job market where a certain level of skill in social functioning is required,

the person with poor mental health may be at a disadvantage regardless of his educational attainment.

If the contention of Dunham et al. (1966) that poor mental health results in status inconsistency is valid, one would expect to find a strong relationship between poor mental health and status inconsistency of the type education higher than occupation. For the purposes of this research this type of status inconsistency has been labeled as the impaired type.

The second measure of status inconsistency utilized in this research is presented below in Table 3.

TABLE 3. FOUR STATUS INCONSISTENCY TYPES

1.	The Underrewarded Type - includes from Table 1 types: 3(O E/I), 6(O/E I), 8 (O/E/I), 9(O/I/E) 11(E/O/I).
2.	The Overrewarded Type - includes from Table 1 types: 2(I/O E), 5(O I/E), 12(I/E/O), 13(I/O/E).
3.	The Impaired Type - includes from Table 1 types: 4(E/O I), 7(E I/O), 10(E/I/O).
4.	The Consistent Type - includes from Table 1 type: 1(E O I).

This measure was formulated by collapsing the 13 types of status inconsistency from Table 1 into the four status inconsistency types in Table 3. For these four status inconsistency types, the underrewarded, overrewarded,

and consistent types remained the same, the only alteration being that the impaired type was selected from among them. The impaired type was selected on the basis that the occupation score was always below the education score.

Six Status Inconsistency Types

The third reformulation of the 13 status inconsistency types provided the inconsistency measure for the second test of the predominant process in the relationship between status inconsistency and poor mental health discussed in Chapter 3. This test involved determining whether or not the subject perceived himself as underrewarded. This was measured by the subject's yes or no response to the following question: "All things considered, do you think your pay is a fair wage/salary?" A positive response to this item was taken as an indication that the subject perceived his wages as being fair and therefore did not perceive himself as underrewarded. A negative response to this item was taken as an indication that the subject perceived his wages as being unfair and therefore did perceive himself as underrewarded. Some might argue that the subject could claim his wages were unfair but that they were unfair in the direction of being overrewarded rather than underrewarded. While technically this is possible, it seems extremely unlikely

for the following reasons. Few, if any, people feel as though they are overpaid; if they do perceive a discrepancy concerning their income, it is almost always in the direction of being underpaid. Additionally, even in the unlikely case of an individual who did perceive himself as overpaid, he would be less likely to openly admit it than would individuals who perceive themselves as underpaid. It is not as socially acceptable to complain about being overpaid as it is to complain about being underpaid. As Homans (1961:232) has pointed out, a person who thinks he is overrewarded is more likely to feel guilt than anger or frustration. He is less likely to seek distributive justice since the rules of distributive justice would go against him rather than favor him. Therefore, the overrewarded individual would be much less likely to admit that he was unfairly rewarded, either to conceal his unearned dividends, or to conceal his guilt.

The three status inconsistency types, the underrewarded, the overrewarded, and the consistent, which were developed in Table 2 by collapsing the 13 status inconsistency types, were utilized along with whether or not the individual perceived himself as underrewarded to develop the six status inconsistency types listed below in Table 4. Thus, according to this classification of status inconsistency, an individual by objective measures may be either

underrewarded, overrewarded or consistent, but within any one of these three he may either subjectively perceive himself as underrewarded or not underrewarded.

TABLE 4. SIX STATUS INCONSISTENCY TYPES

1. Underrewarded, Perceived Underreward
2. Underrewarded, No Perceived Underreward
3. Overrewarded, Perceived Underreward
4. Overrewarded, No Perceived Underreward
5. Consistent, Perceived Underreward
6. Consistent, No Perceived Underreward

As previously noted, introducing the perception of underreward helps to determine the predominant process in the relationship between status inconsistency and poor mental health. If one claims that it is an underrewarded type of inconsistency which has the greatest negative effect on mental health, as is done here from the perspective of distributive justice, then one would expect perceived underreward to have a greater negative effect on mental health than nonperceived underreward. However, if one argues that it is poor mental health which results in status inconsistency, then the perception of underreward

would be expected to have little impact on the relationship between status inconsistency and mental health. As both Thomas (Janowitz, 1966:23) and Wolff (1953:10-15) have indicated, it is how one perceives the supposed causal factor which is important.

It should be recalled that the sample employed in this analysis consists of full-time employed individuals. Therefore, the most seriously mentally incapacitated individuals are probably eliminated from the analysis by the selective nature of the sample. This, of course, limits the generalizations which can be drawn from the results obtained from both tests. The results of both tests could, however, be generalized to employed populations.

Measurement of Mental Health

The dependent variable in this research was mental health. This variable was measured by six different instruments designed to measure the mental health of general populations. The first of these measures, and the one which has been used most widely, is the Health Opinion Survey (HOS). Many of the items in this measure have their origin in the Army Neuropsychiatric Examination employed by the U.S. Army during World War II for evaluating the mental health of army recruits. MacMillan (1957:327) constructed the HOS measure, stating that "the objective

should be to detect those adults whose responses to questions about their health approximated the responses of psychiatric patients, and differed from the responses of controls drawn at random from the community." MacMillan tested the HOS in two ways. First, the HOS scores for a group of psychiatrically diagnosed patients were compared with scores from the general community. The HOS instrument substantially distinguished between the two groups. Second, a psychiatrist assessed a subsample of the general community sample. In only 14 percent of the cases did the psychiatrist's assessment differ from the HOS score designation in terms of defining the individual as either sick or well. MacMillan (1957:336) concluded that "there is an excellent chance that the screening test will categorize the person in the same 'Sick-Well' way as the clinician."

The HOS has also been tested for reliability by Goldfarb (1967a) with positive results. When Moses et al. (1971) tested the HOS instrument for validity, they concluded "that we can consider the instrument as a possibly useful devise for 'measuring the average level of psychopathology' in a group." This is the purpose for which the measure was used in this analysis, to compare the average level of psychopathology within various groups of status consistent and status inconsistent individuals.

It was not used for any clinical evaluation or individual assessment in this research.

It is important to note that some have questioned the utility of the HOS. Dohrenwend and Dohrenwend (1965) have criticized the HOS and other measures of mental health for their lack of content validity. However, they then go on to say:

> It is doubtful whether content validity, in the strictest sense, can be achieved in the measurement of untreated psychological disorder, since there appears to be no universe of items which experts agree on as defining the variable. (1965:56)

But the Dohrenwends contend that it is appropriate to seek construct validity in which a "nomological net" of patterned relationships are observed (1965:59). Later, in speaking of the Stirling County, Midtown Manhattan and other studies, the Dohrenwends observed:

> Moreover, there appears to be considerable agreement among them on these vividly contrasting sets of symptom complexes despite differences in where they draw the boundaries among the different types and between all of the types of psychopathology and 'normality.' Our reason for believing that such basic agreement exists is that we found in previous analyses that there were consistent relationships from study to study between various types of psychopathology and various social and cultural factors (1969). Such consistencies we take as evidence of the meaningfulness, 'the truth,' of these broad nosological distinctions as manifested in the epidemiological investigations. (1974:427)

Thus, the Dohrenwends maintain that the consistent

relationship from study to study between various social factors and psychopathology measures constitutes a "nomologic net" of patterned observable relationships. Within the context of this "nomological net" it is possible to construct valid measures of psychopathology.

Tousignant et al. (1974: 241, 251), while admitting the HOS does distinguish between a group of diagnosed mental patients and a group from a general population, have criticized the HOS instrument for principally two influences or two biases. First, they claim it does not adequately distinguish between physical health and mental health problems. Second, they maintain that it is susceptible to socially desirable response biases. While these are admittedly weaknesses, one should consider for a moment the nature of these weaknesses.

The HOS may be weak in terms of distinguishing between physical and mental health problems, but to some extent this may be a function of the nature of the problem, rather than a short coming of the measuring instrument. The extent to which mental problems are a function of physical or biological processes is as yet undetermined. The classical notion of the dualism of mind and body may very well be a myth. A high association between physical and mental health is a common research finding. As

Hinkle and Wolff (1957:115) have noted, "Those people who had the greater number of bodily illness, regardless of their etiology, were the ones who experienced the greater number of disturbances of mood, thought, and behavior." Palarea (1965:18) also concluded, "The presence of concurrent significant medical and psychiatric illness appears to be the rule rather than the exception." The findings of Schwab et al. (1970a:162) were similar, "Repeatedly we and others have found that emotionally ill persons report both somatic and mental distress; in fact, psychiatrically ill patients reported even more symptoms of physical distress than do patients with sharply defined or clear-cut medical illness." If mental and physical illness are in reality so highly associated, it may be unrealistic to expect the HOS, or any other measuring instrument, to unambiguously distinguish the two.

Second, Tousignant et al. (1974) criticized the HOS for being biased by a social desirability factor. This is a short coming which is certainly not particular to the HOS measure but is relevant to all measures of social attitudes or behavior. But the criticism here is that some groups score higher on the HOS because the responses which yield a high score are not as socially undesirable or unacceptable among those groups. As Dohrenwend and

Dohrenwend (1969:87) have pointed out, however, the reason those responses are more socially acceptable among some groups may be that the behavior represented by those responses is manifested more often in those groups. In other words, the behavior which is socially defined as symptomatic of mental illness may be more prevalant among some groups. For this reason it is less unusual, and therefore it is more socially acceptable.

Thu, while either or both of the major criticisms which Tousignant et al. made concerning the HOS may to some extent be valid, they do not necessarily limit the utility of the measure.

In addition to the HOS measure, there are five other measures of mental health utilized in this research. These measures include a measure of depression, mood, anxiety symptom, worry and nervous breakdown, and general psychopathology. An item by item listing of each of these measures along with the HOS may be found in Appendix B. All the measures are scored by summing the subjects' responses to indicate a total score on each measure. In each case, a low score indicates good mental health, a high score indicates poor mental health. A detailed developmental history and general description of these measures can be found in Warheit et al. (1973):

> The 6 scales that have been produced were developed to provide a normative description

> of the distribution of psychiatric symptomatology in the population rather than to diagnose individuals. Specifically, they were designed to measure psychiatric disorder at the construct level, as described in the DSM-II, Diagnostic and Statistical Manual of Mental Disorders (1968) . . . In addition, supporting evidence of their validity is provided by the following: (1) the items included were drawn from the psychiatric literature; (2) the items were examined by a panel of experts and their content was judged to be appropriate; (3) factor analytic procedures empirically confirm their grouping into scales; and (4) the scales have an acceptable level of internal consistency as measured by Cronbach's Alpha (1951). (Warheit et al., 1973b:7)

Additional evidence for the validity of these measures was supplied by a recent validation study by Warheit and his colleagues in which this author participated. This as yet unpublished data indicated that all six measures employed in this analysis were able to distinguish between a group of psychiatric patients and a group drawn from the general population in an analysis of variance and a discriminant function analysis. Kuldau et al. (1977) will be presenting these data for the HOS measure.

Each of the measures which were utilized in this research are listed below along with the range and corresponding score which is considered to be the cutting point; that score or higher is taken to be a high score on that particular measure. The high score for the

HOS was the level which was considered by the Leighton's (1963) to indicate a probable psychiatric case.* By psychiatric case the Leightons meant that at some time in his adult life the respondent would qualify as a case according to the criteria of the 1952 Diagnostic and Statistical Manual of the American Psychiatric Association. The high score level for the other five measures was set at one standard deviation above the mean for each measure, as indicated by Warheit et al. (1973b).

TABLE 5. MENTAL HEALTH MEASURES, THEIR RANGES, AND CORRESPONDING HIGH SCORE LEVELS

Mental Health Measures	Ranges	High Score Levels
HOS	20-60	35
Depression	0-72	25
Mood	0-36	14
Anxiety	0-48	14
Worry, Nervous Breakdown	0-44	5
Psychopathology	0-32	5

*This level was selected rather than the lower level which the Leightons believed represented a possible psychiatric case because it is a more conservative indicator. Anyone who scored above the probable case level also scored above the possible case level, but the reverse is not true.

Control Variables

The control variables utilized in this research were race, sex, age, marital status and socioeconomic status (SES). These control variables were allowed to explain all the variation in the mental health scores which could be attributed to them before status inconsistency was introduced to determine what portion of the remaining variance could be attributed to it. This rather strenuous procedure was suggested by Mitchell (1964), who maintained that status inconsistency research should first allow the traditional statuses to account for all the variation in a dependent variable which can be attributed to them. Then, status inconsistency should be examined to determine what portion of the remaining variance can be attributed to it. This is a conservative approach which insures that the explanatory power of the traditional statuses is exhausted before turning to status inconsistency as an explanation.

The first four control variables of race, sex, age and marital status were measured by a simple question which asked each subject his status on that variable. As they were utilized in this research, the possible response patterns became race (black or white), sex (male or female), age (16 to 96), marital status (married or not married).

The final control variable of SES was computed as an average of the individual's education, occupation, and income scores. The computation of these scores has been previously discussed in detail with reference to the measurement of status inconsistency. This SES score may range from zero to 100; the details of its computation are reported by the U.S. Bureau of the Census (1967).*

This analysis does not include the status variables which were used to measure status inconsistency as individual control variables (education, occupation, and income). Rather, they are included in the form of an SES scores which is an average of the three. Attempts to model the relationship between status inconsistency and various dependent variables while controlling for the separate effects of the status variables utilized in the inconsistency measure have repeatedly encountered difficulty in terms of interaction, multicollinearity and singularity.

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*The method utilized for scoring SES in this analysis differs from the procedure reported by the U.S. Bureau of the Census in only one respect. The individual respondent's scores on education, occupation and income were used rather than selecting the higher of the two scores reported on these three variables by the respondent or his spouse. Thus, the SES score reported here represents the individual respondent's SES level, rather than a family measure of SES. This was done because all the other variables utilized in this analysis were measured at the individual level.

These difficulties have been amply discussed by Blalock (1966, 1967a, 1967b, 1967c, 1969, 1972), Duncan (1975a), Mitchell (1964), Draper and Smith (1966), Hadley (1973) and Morrison (1976). As Hope has indicated:

> When a model proposed as a test of a theoretical position runs into immediate mathematical difficulties, we may either question the coherence of the theory or impugn the claim of the model to represent the theory. It seems that no wroter has taken the latter course. (Hope, 1975:326)

The position espoused here is that the models incorporating the separate status variables utilized in the status inconsistency measure to control for the direct effect of status misrepresent the theory. The model employed in this analysis uses an average of the statuses employed in the status inconsistency measure to control for the direct effect of status.

In his original paper on status crystallization, Lenski noted the methodological implications of status inconsistency in connection with socioeconomic status:

> During the past two decades it has become fashionable in social science circles to construct indices of socio-economic status by averaging up in some manner several status variables. The findings of this present study indicate that such constructions are seriously deficient in characterizing the social status of a significant minority of the population. Such techniques for classifying individuals fail to take into account what appears to be an important dimension of status, and thus may frequently fail to account for an important part of the variance in the

> phenomena under investigation. (Lenski, 1954:413)

Thus, Lenski's original statement suggested testing status inconsistency against an average socioeconomic status rather than against the separate status variables involved in the status inconsistency measure. Therefore, Hope's statement that the model employed in most previous status inconsistency research in which the status variables are considered separately misrepresents the theory, is correct.

Hope succinctly discussed the issues involved in the theory of status inconsistency and controlling for an average status, rather than separate individual statuses:

> It is not reasonable to conclude without further ado that, because a mathematical model has run into immediate difficulties, the theory which it is intended to express must be defective. Direct conceptual analysis of Lenski's verbal statement of the theory shows that it is coherent. The fault, therefore, must lie in the model, and one need not seek far to find it. The crucial misrepresentation is contained in a statement by Blalock (and echoed by many users of the model since) to the effect that "an underlying thesis of all these approaches is that dependent variables may be influenced not only by the separate effects of several independent variables but . . ." (p. 790). In fact Lenski did not, in his original paper, define inconsistency by contrast to the separate effects of the status variables. Rather he defined it as deviations from a vertical dimension which specifies the shared effects of the status variables. The logic of the geometric

> structure he describes is that, in controlling for the vertical dimensions of status, some aspects of each of the status axes should be controlled for, but not that all (linear) aspects of all axes should be controlled for. Thus a status discrepancy is present to the degree that the estimates obtained from the regression of y on the set of independent variables (each contributing its separate effect) fit the data better than estimates obtained by regression y on the vertical dimension, however defined. Putting the matter at its simplest and considering only signed differences, we may say that the existence of a status inconsistency effect has been disproved if the equation
>
> $$y = b_1 (x_1 + x_2) + b_2 (x_1 - x_2)$$
>
> yields the same estimates as
>
> $$y = b_1 (x_1 + x_2).$$
>
> (Hope, 1975:326-27)

The primary focus of this research is the relationship between status inconsistency and mental health. The direct effect of the status variables have been controlled by employing the SES score, which provides the shared effects of the status variables discussed by Hope. His explanation was as follows:

> Status and status inconsistency are concepts which stand or fall together*. . . It is a paradox of empirical research that investigators have purported to test for the existence of status inconsistency effects while refusing to identify an overall dimension of status. If in a particular analysis, we do not recognize the existence of such a dimension because we regard the

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*It should be noted that this statement refers to conceptual analysis, not to actual existence or nonexistence in the social life of the world.

> axes as incommensurable, then we cannot meaningfully say that a person is consistent or inconsistent. . . It is open to us to deny the usefulness of meaningfulness of both concepts, but we cannot supply evidence against either one without admitting the meaningfulness of both. (Hope, 1975:328-27, 341)

Thus, Hope maintained that the proper way to control for the direct effects of status in status inconsistency research is to control for the effects of an average status measure, rather than the effects of each of the component status variables individually. This is the approach which has been adopted for this research.

In addition to the methodological reasons for utilizing SES rather than the individual measures of education, occupation and income as a control variable, the problem of multicollinearity provides a statistical reason for using a composite SES score. In fact, the basis of this research is that the correlation among these three variables is so well known it is expected, and when it does not occur the result is social stress which has a negative effect on mental health. But the high multicollinearity among these variables prohibits entering them separately into a regression equation with a status inconsistency measure to predict a mental health measure. This was supported by Klein (1962:101), who maintained that multicollinearity in a regression equation exceeds

the limits of tolerability if

$$r_{ij} > R$$

where r_{ij} is the correlation coefficient between the independent variables and R is the square root of the coefficient of multiple determination, R^2. In Table 6, the correlation coefficients among the three variables are presented.

TABLE 6. CORRELATION COEFFICIENTS FOR EDUCATION, OCCUPATION AND INCOME

	Education	Occupation	Income
Education	1.00000	0.26361	0.39341
Occupation	0.26361	1.00000	0.22849
Income	0.39341	0.22849	1.00000

In Table 7, the R values for the regression of education, occupation and income on the six measures of mental health utilized in this analysis are presented.

TABLE 7. R VALUES FOR THE REGRESSION OF EDUCATION, OCCUPATION AND INCOME ON SIX MEASURES OF MENTAL HEALTH

Six Measures of Mental Health	R Values
HOS	0.22031
Depression	0.28069
Mood	0.27773
Anxiety	0.21773
Worry, Nervous-Breakdown	0.14254
Psychopathology	0.12620

Upon comparing the correlation coefficients in Table 6 with the R values in Table 7, it will be noted that the lowest correlation coefficient 0.22849 (correlation of occupation and income) is larger than the R values for all the mental health measures except depression and mood, and on these two it is close to being larger. The largest correlation coefficient 0.39341 (correlation of education and income) is larger than the R values for all six mental health measures.

As Klein indicated, multicollinearity in which the correlation coefficients among the independent variables are greater than the square root of the coefficient of multiple determination exceeds the limits of tolerability

in a regression analysis. Thus, the multicollinearity among education, occupation and income is too high for them to be employed as separate independent variables in a regression analysis and obtain meaningful statistical results.

Finally, singularity begins to become an issue, since as multicollinearity increases singularity is approached. In order for a matrix to be nonsingular, no column can be a linear function of any other column. Obviously, in a case of extreme multicollinearity this would not be true, and the resulting matrix would be a singular matrix. But the determinant of a singular matrix is zero, and the inverse of the matrix does not exist. Since a regression procedure requires utilizing the inverse of a matrix, a singular matrix cannot be used in a regression analysis. This illustrates why care must be exercised in specifying the variables to be used in a regression analysis (Draper and Smith, 1966:47-48; Hadley, 1973:103; Morrison, 1976:47).

Statistical Procedures

The statistical analysis employed in this research includes a crosstabulation of each of the six measures of mental health by each of the three measures of status inconsistency. This was done to ascertain the percent scoring high on the mental health measures according to

each category of the status inconsistency measures as determined by the low-high cutting points listed in Table 5. A one-way analysis of variance was also completed on each of the mental health measures by each of the status inconsistency measures. This procedure provided the mean, standard deviation and standard error scores for each of the six mental health measures according to the categories of each of the three status inconsistency measures. Since there are six measures of mental health and three measures of status inconsistency, there are 18 tables displaying the results of the cross-tabulation and one-way analysis of variance procedures.

In order to determine the extent to which the variation accounted for by status inconsistency is not attributable to other status variables, a regression analysis was performed. For this procedure, each of the measures of mental health was separately considered as a dependent variable with all the status control variables, all of the measures of status inconsistency and all possible first order interaction terms as independent variables. In these regression equations a forward inclusion procedure which forced the control variables of race, sex, SES, age and marital status into the equation first was utilized. Then the status inconsistency variables were entered to determine what portion of the unexplained variance was

attributable to them. Finally, all the possible first order interaction terms were entered, although only the statistically significant interaction terms are reported. Once again, 18 tables were produced to display the results obtained from the 18 regression equations produced by the six measures of mental health and the three measures of status inconsistency. Statistical analysis utilizing regression procedures is dependent upon the extent to which certain assumptions are not violated. These assumptions concern the distribution of the observed errors (residuals) if the model is correct. These assumptions are that the errors have a zero mean and a constant variance, are independent and follow a normal distribution. The extent to which these assumptions are violated may be evaluated by examining a scatter plot of the residuals (Draper and Smith, 1966:86-87). An examination of these plots indicated that these assumptions do not appear to have been violated.

In addition, in order to address the criticisms of Berry and Martin (1972:87) concerning the extent to which status inconsistency varies independently of SES, a crosstabulation and a one-way analysis of variance of SES by status inconsistency were performed.

Summary

The data for this analysis were obtained by combining two existing data sets. Both were epidemiologic field surveys in central and north central Florida. A complete description of the data can be obtained in Warheit et al. (1973a) and Bell et al. (1974). Both samples were drawn by means of a systematic probability sampling procedure supplemented by area sampling. The Kish (1965) method for selecting respondents within households was employed in both surveys.

Employing a complete status profile analysis based on the procedure developed by the U.S. Bureau of the Census (1967), 13 different types of status inconsistency were measured. These 13 status inconsistency types were collapsed in three different ways to produce three separate measures of status inconsistency.

The first measure has three status inconsistency types. The underrewarded type has an income level below his education or occupation level (reward less than investments). The overrewarded type has an income level above his education or occupation level (reward greater than investments). The consistent type has an income, education and occupation of about the same level (reward comparable to investments). These three types of status inconsistency were developed to test the theory of distributive justice

as delineated by Homans (1961). In general, the theory holds that people seek equality between their investments and rewards (consistency). When their investments exceed their rewards (underrewarded) they tend to become disturbed or upset, experiencing distributive injustict of being cheated or "ripped off." When their rewards exceed their investments (overrewarded), any disturbance they might experience is milder since they have "beat the system."

The second measure has four status inconsistency types. It includes the three types developed in the first measure plus an impaired type. The impaired type has an occupation level below his education level. This second measure of status inconsistency is the measure used in the first test for the predominant process in the relationship between status inconsistency and mental health discussed in Chapter 3. Dunham et al. (1966) believed that poor mental health tends to result in status inconsistency. This is based on the contention that in the semi-protective environment of the educational system mentally disturbed persons may be able to function adequately. But when called on to function in the dompetitive world of the job market demanding a variety of social skills their capacity to function adequately declines. They then tend to drift into occupational positions which are lower than their educational attainment. One test between the explanation

provided by the argument advanced by Dunham et al. (1966) and the argument of the distributive justice approach is simply to determine which type of status inconsistency is most highly associated with poor mental health. The argument of Dunham et al. would predict the impaired type to be highly associated with poor mental health. The argument of distributive justice would predict the underrewarded type to be highly associated with poor mental health. If the impaired type was found to be the most highly associated with poor mental health the argument of Dunham et al. would be favored. If the underrewarded type was found to be the most highly associated with poor mental health the argument of distributive justice would be favored.

The third measure of status inconsistency is the same as the first measure, except that the three types in the first measure, have each been split into two types based on whether or not the individuals perceived themselves as underrewarded. This is the measure of status inconsistency used in the second test for the predominant process in the relationship between status inconsistency and mental health discussed in Chapter 3. As Thomas (Janowitz, 1966) and Wolff (1953) have both indicated, how a factor affects a person is to a large degree dependent on how the person perceives the factor. Therefore, the individual's perception of the supposed causal factor is important. If perception of underreward introduces little

change in the relationship between status inconsistency and poor mental health, the argument that poor mental health results in status inconsistency would be favored, since the perception of this supposed causal factor had little effect on the relationship. If the perception of underreward does introduce change in the relationship between status inconsistency and poor mental health, the argument that status inconsistency has a negative effect on mental health would be favored, since the perception of this supposed causal factor did change the relationship.

Mental health was evaluated by six measures designed to measure psychopathology in general populations. These measures included the Health Opinion Survey and measures of depression, mood, anxiety, worry and nervous breakdown, and general psychopathology. Each of these measures is provided in Appendix B.

The analysis controlled for the effects of other sociodemographic variables on mental health to insure that none of the explanation attributed to status inconsistency was actually explainable by more common sociodemographic factors. This was done by entering the control variables of race, sex, age, marital status, and SES into the regression equation before the status inconsistency variables were entered. This allowed these control variables to explain all the variance in the mental health scores attributable to them before status inconsistency

was allowed to explain the proportion of the remaining variance attributable to it. All possible first order interaction terms were also entered into the equation.

The individual variables of education, occupation and income were not entered as separate variables but were controlled for by utilizing a composite SES index which represented an average score for these three variables. This was done for both methodological and statistical reasons. Methodologically, controlling for the effects of a composite SES index is more consistent with the original model of status inconsistency as developed by Lenski (1954) (Hope, 1975). Statistically, utilizing the SES index avoids the problem of multicollinearity among the variables of education, occupation and income and the possible problem of singularity.

The data analysis was conducted by performing a crosstabulation and a one-way analysis of variance of each of the mental health measures by each of the status inconsistency measures. Statistical controls were introduced by using three sets of regression equations. For each of the three measures of status inconsistency, each of the mental health measures was a dependent variable with the independent variables of race, sex, SES, age, marital status, status inconsistency and all possible first order interaction terms.

CHAPTER 5
FINDINGS AND DISCUSSION

Status Inconsistency and SES

The data relating to the criticisms of Berry and Martin (1972), concerning the extent to which status inconsistency varies independently of SES, will be presented first. Table 8 provides a comparison of the scores on the first measure of inconsistency, the three status inconsistency types of underrewarded, overrewarded and consistent, with the scores on SES. This particular measure was selected because it represents the most basic measure of status inconsistency employed in this analysis. It is the most basic because the other two measures, consisting of the four status inconsistency types and the six status inconsistency types, were both developed from this first measure.

As previously noted, Berry and Martin (1972:87) maintained:

> Individuals with either high or low socioeconomic scores can have only high consistency scores, and it is only individuals with middle socioeconomic scores who can possibly have low consistency scores. Thus, individuals with low consistency scores necessarily are middle class, and the high and low class subjects necessarily obtain consistent scores.

Upon examining Table 8, however, it becomes apparent that Berry and Martin's criticism, while perhaps valid for some measures, is drastically overstated with reference to the particular measures of status inconsistency and SES which are employed in this analysis. Scores on SES may range from zero to 100. The five SES groups divide this range into 20 point intervals, with the first (I) SES group being the low and the fifth (V) being the high group. In the bottom row, which displays the sample totals, an examination of the percent of the three status inconsistency types in each SES group clearly indicates that the sample as a whole is skewed towards the higher SES groups. One would expect full-time employed people to have generally higher SES scores than a general sample including nonemployed people, especially when the SES scores are based on individual measures rather than a family measure of SES.

TABLE *. THREE STATUS INCONSISTENCY TYPES BY SES SCORES

Inconsistency	N	M	S.D.	% Of Three Status Inconsistency Types In Each SES Group				
				I	II	III	IV	V
Underreward	248	60.45	13.64	.4	9.7	34.7	50.0	5.2
Overreward	680	51.44	17.86	1.5	28.8	34.6	31.0	4.1
Consistent	544	69.66	20.38	2.0	6.6	24.3	29.8	37.3
Total	1472	59.69	20.00	1.5	17.4	20.8	33.8	16.6
		F = 151.34			P - .001			

Second, the percent of the three status inconsistency types in each SES group indicates that contrary to the claim of Berry and Martin all the status inconsistency types are indeed represented in all the SES groups. The underrewarded type was most highly represented in the fourth (IV) SES group (50%); the overrewarded type was most highly represented in the middle (III) SES group (34.6%), and the consistent type was most highly represented in the highest (V) SES group (37.3%). SES group one (I) had the lowest percentage of every type of status inconsistency.

The one-way analysis of variance displayed in the N, mean and standard deviation columns to the left of Table 8 also indicates the difference in SES according to the three status inconsistency types. The high mean SES score was for the consistent type (69.66), while the low SES score was for the overrewarded type (51.44), with the middle level SES score (60.45) for the underrewarded type. The F score was very high, which resulted in a significant difference in SES scores among the three status inconsistency types at beyond the .001 level of significance.

It was pointed out earlier that the difference in mean SES scores among the status inconsistency types would be used to show that status inconsistency had an effect on mental health independent of SES. Dohrenwend and

Dohrenwend (1974:440) summarized 33 studies on the relationship between low SES and high rates of psychopathology. In 28 of these 33 studies the rates of psychopathology were highest in the lowest SES group. If status inconsistency has no effect on mental health independent of SES, then strictly on the basis of the mean SES scores from Table 8 one would predict the highest mental health scores for the overrewarded, followed by the underrewarded, with the consistent type having the lowest scores.* As will be noted in Tables 15 through 20, the actual results do not conform to this prediction. For all six measures of mental health it was the underrewarded group which had the highest scores, not the overrewarded group as would have been predicted on the basis of their SES scores. This indicates that status inconsistency did have an effect on mental health scores independent of SES.

Thirteen Status Inconsistency Types and Mental Health

In this research, the 13 status inconsistency types are not directly utilized to investigate the relationship

*It is important to keep in mind throughout the analysis that high scores on these measures of mental health represent poor mental health while low scores represent good mental health.

between status inconsistency and mental health. There are two primary reasons for this. First, the large number of different types of status inconsistency becomes confusing both conceptually and statistically. Second, the very small number of cases in types eight through 13, despite the effort to increase the sample size to avoid this situation, makes statistical analysis of these categories futile. It was for these reasons that the 13 status inconsistency types were collapsed to produce the three measures of status inconsistency utilized in this analysis.

There is at least one finding, however, which should be explicitly pointed out in relation to the 13 status inconsistency types (see Appendix C for these Tables). Among the 13 status inconsistency types, the single best representative of the underrewarded type as developed in relation to the theoretical perspective of distributive justice is type three. In type three, the subjects' occupational and educational status are consistent (within 25 points), but their income is below (at least 25 points below) their occupation or education. When types eight through 13 are ignored because of their small N's, type three has both the highest mean score and the highest percentage, scoring high for four of the six measures of mental health. For five of the six

measures of mental health, type three had the highest mean score, and for all the measures of mental health, type three had at least the second highest mean score and percent scoring high. Thus, prior to collapsing the 13 status inconsistency types, there is evidence that the underrewarded type of status inconsistency is associated with high scores, indicating poor mental health.

Three Status Inconsistency Types and Mental Health

The three status inconsistency types and the data indicating their distribution on the six mental health measures are presented in Tables 9 through 14. In five of the six tables the underrewarded type has both the highest mean score and the highest percent scoring high on the mental health measures. On the sixth measure, psychopathology, the underrewarded type has the highest mean score, and the second highest percent scoring high on the measure. On four of the six mental health measures, the consistent type has both the lowest mean score and the lowest percent scoring high, and on all six measures they have the lowest percent scoring high. For the two measures, worry-nervous breakdown and psychopathology, where the consistent type does not have the low mean score, the overrewarded type has

TABLE 9. THREE STATUS INCONSISTENCY TYPES BY THE HEALTH OPINION SURVEY SCORE

Inconsisteycy	N	Mean	S.C.	% High
Underrewarded	248	26.31	4.52	6.0
Overrewarded	680	25.95	4.79	4.7
Consistent	544	25.47	4.46	4.2
TOTAL	1472	25.83	4.54	4.8
	F=3.257		P=.038	

TABLE 10. THREE STATUS INCONSISTENCY TYPES BY THE DEPRESSION SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	248	14.89	8.35	14.5
Overrewarded	680	12.93	8.89	10.0
Consistent	544	12.62	8.40	8.6
TOTAL	1472	13.14	8.65	10.3
	F=6.287		P=.002	

TABLE 11. THREE STATUS INCONSISTENCY TYPES BY THE MOOD SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	248	7.54	5.05	11.7
Overrewarded	680	6.49	5.12	10.9
Consistent	544	6.31	4.82	8.6
TOTAL	1472	6.60	5.02	10.2
	F = 5.511		P = .004	

TABLE 12. THREE STATUS INCONSISTENCY TYPES BY THE ANXIETY SYMPTOM SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	248	5.04	5.23	7.3
Overrewarded	680	4.36	5.43	6.3
Consistent	544	4.00	5.13	5.3
TOTAL	1472	4.34	5.29	6.1
	F = 3.282		P = .037	

TABLE 13. THREE STATUS INCONSISTENCY TYPES BY THE WORRY, NERVOUS BREAKDOWN SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	248	2.21	4.62	15.3
Overrewarded	680	1.39	3.88	9.7
Consistent	544	1.59	3.93	9.6
TOTAL	1472	1.60	4.04	10.6
	F = 3.755		P = .023	

TABLE 14. THREE STATUS INCONSISTENCY TYPES BY THE PSYCHOPATHOLOGY SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	248	5.34	3.33	13.3
Overrewarded	680	4.79	3.71	14.6
Consistent	544	4.85	3.07	9.6
TOTAL	1472	4.96	3.43	12.5
	F = 2.546		P = .077	

the lowest mean score. But for both of these measures, the overrewarded type is never more than .36 of a point higher than the consistent type.

Overall, the general finding from these six tables fits very well with what one would expect to be the relationship between status inconsistency and mental health from the perspective of distributive justice. Generally, it was the underrewarded type which had the highest scores; the consistent type had the lowest scores, while the overrewarded type tended to have the middle range scores. Additionally, the few deviations which did occur from this general pattern were in the expected direction. Anytime the underrewarded type was not the high score on a mental health measure, it was the other type of status inconsistency, the overrewarded type, which was the high rather than the consistent type. And, when the consistent type was not the low score on a mental health measure, the overrewarded type, the type predicted to be less stressful than the underrewarded type, had the low score. In other words, the underrewarded type never had the low score, and the consistent type never had the high score. Thus, the deviations which occurred were of the type which one would expect from the perspective of distributive justice.

The above analysis examined the relationship between

status inconsistency and mental health scores in the absence of any controls for the effects of other variables. When the control variables of SES, race, sex, marital status, and status inconsistency variables and all possible first order interaction terms were introduced as independent variables in a regression equation to predict the mental health scores, the relationship became more difficult to interpret. The procedure employed allowed the other status control variables to explain all the variance which could be attributed to them before entering the status inconsistency variables. The analysis of the scores on the six measures of mental health is found in Tables 15 through 20.

For the underrewarded type, the beta coefficients* in all six equations for predicting the six mental health scores were positive, and three were statistically significant. For the depression and mood measures, these positive beta coefficients were statistically significant at the .05 level and for the psychopathology measure at

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*The beta coefficients discussed in this analysis are partial regression coefficients. The beta coefficients indicate the amount of expected change in the dependent variable for each unit of change in the independent variable represented, controlling for the effects of the other independent variables in the equation. Expressed differently, the beta coefficients indicate the expected difference on the dependent variable between groups that differ by one unit on the independent variable represented by the beta coefficient but are equal on the other independent variables.

the .01 level. This indicates that on these measures the underrewarded type scored significantly higher than the consistent type after controlling for the effects of race, sex, age, marital status, SES and entering the statistically significant first order interaction terms. For the psychopathology scores in Table 20, however, there is the statistically significant interaction term of white female*underreward. Therefore, for the white female, this interaction term must be considered. The -1.20184 beta coefficient for white female*underreward must be added to the 1.09344 beta coefficient for underreward, yielding an overall -0.1084 effect on psychopathology scores for white females in the underrewarded type.

On the other hand, the overrewarded type had negative beta coefficients for the HOS, anxiety and psychopathology scores, indicating that the overrewarded type actually scored lower than the consistent type on those measures after considering the effects of the control variables and the statistically significant interaction terms. This negative effect was statistically significant, however, for only the anxiety measure at the .05 level. But this finding is mediated by the presence in Table 18 of the statistically significant interaction term of age*overreward. This represents the interaction of the continuous

variable of age with the dummy variable of overreward. To assess the effect of this interaction term for a particular overrewarded individual, one would multiply the subject's age by the beta coefficient for age*overreward and add this product to the beta coefficient for overreward. In order to assess the possible effect of age as it varies from low to high, one would multiply the possible range of age, which is 80 (16 to 96), by the beta coefficient for age*overreward and add this product to the beta coefficient for overreward. In this analysis, however, the primary interest in assessing the effects of all interaction terms centers in their general or average effect. In order to assess this average effect, the mean age for the sample (39.792) is multipled by the beta coefficient for age*overreward (0.04192), and this product (1.6681) is added to the beta coefficient for overreward (-1.8132), which yields an overall negative effect of -0.14514 for overreward on the anxiety measure.

For the depression and mood measures, the overrewarded type had a positive beta coefficient which was statistically significant for depression at the .01 level and mood at the .05 level. For these two measures, the positive beta for overreward was greater than the positive beta for underreward.

TABLE 15. PREDICTION OF HEALTH OPINION SURVEY SCORES FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.04667	-0.20461	0.00695	45.109	.001
Marital Status	0.31412	0.03043	0.34294	0.839	NS
White Female	-0.15871	-0.01611	0.32653	0.236	NS
Black Male	-2.79496	-0.18125	1.14289	5.981	.05
Age	-0.00159	-0.00479	0.00862	0.034	NS
Black Female	0.03228	0.00202	0.45654	0.005	NS
Underreward	0.52444	0.04127	0.33795	2.408	NS
Overreward	-0.03132	-0.00338	0.27088	0.013	NS
White Female*Marital Status	1.58537	0.11150	0.53391	8.817	.01
Black Male*Age	0.05445	0.15367	0.02634	4.274	.05
(Constant)	28.38791				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.25781					
R Square	0.06647	Regression	10.	2253.53716	225.35372	11.44879
Standard Error	4.43662	Residual	1608.	31661.27198	19.68363	

TABLE 16. PREDICTION OF DEPRESSION SCORES FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.05541	-0.12966	0.01509	13.484	.001
Marital Status	2.21533	0.11454	0.68958	10.321	.01
White Female	1.123937	0.06715	0.59455	4.345	.05
Black Female	4.67116	0.15607	1.14260	16.713	.001
Age	-0.02798	-0.04512	0.01483	3.561	NS
Black Male	0.59753	0.02068	0.87198	0.470	NS
Underreward	1.49138	0.06265	0.61394	5.901	.05
Overreward	4.40492	0.25359	1.50867	8.525	.01
White Female*Marital Status	2.73439	0.10265	1.01024	7.326	.01
SES*Overreward	-0.07482	-0.24348	0.02369	9.978	.01
Black Male*Marital Status	-3.74559	-0.07335	1.55446	5.806	.05
Black Female*Overreward	-3.57569	00.09039	1.49589	5.714	.05
(Constant)	15.44292				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.36592					
R Square	0.13389	Regression	12.	15933.20427	1327.76702	20.68984
Standard Error	8.01092	Residual	1606.	103064.75744	64.17482	

TABLE 17. PREDICTION OF MOOD SCORES FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

REGRESSION COEFFICIENTS

Variable	B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.07642	-0.30836	0.02005	14.525	.001
Marital Status	1.16834	0.10416	0.39947	8.554	.01
White Female	0.63188	0.05903	0.34341	3.386	NS
Black Female	1.81378	0.10448	0.48626	13.913	.001
Age	-0.08477	-0.23568	0.02565	10.922	.001
Black Male	0.67411	0.04023	0.50448	1.786	NS
Underreward	0.75145	0.05443	0.35578	4.461	.05
Overreward	1.66113	0.16488	0.80467	4.262	.05
White Female*Marital	1.59790	0.10343	0.58553	7.447	.01
SES*Overreward	-0.03327	-0.18666	-0.01302	6.528	.05
Black Male*Marital Status	-2.06810	-0.06983	0.90129	5.265	.05
Age*SES	0.00096	0.21472	0.00042	5.107	.05
(Constant)	11.27304				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.3667					
R Square	0.13445	Regression	12.	5381.74208	448.47851	20.78840
Standard Error	4.64473	Residual	1606.	34647.03618	21.57350	

TABLE 18. PREDICTION OF ANXIETY SYMPTOM SCORES FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.03764	-0.14528	0.00948	15.834	.001
Marital Status	0.13323	0.01136	0.39053	0.116	NS
White Female	2.22145	0.19853	1.03384	4.617	.05
Black Female	0.88766	0.04892	0.53590	2.744	NS
Black Male	-2.55784	-0.14604	1.30805	3.824	NS
Age	-0.01903	-0.05062	0.01189	2.560	NS
Underreward	0.74305	0.05149	0.38664	3.693	NS
Overreward	-1.81322	-0.17218	0.83727	4.690	.05
White Female*Marital Status	1.50053	0.09291	0.60788	6.093	.05
Age*Overreward	0.04192	0.17890	0.01909	4.822	.05
White Female*SES	-0.03568	-0.19680	0.01565	5.199	.05
Black Male*Age	0.06186	0.15373	0.03029	4.172	.05
(Constant)	6.84677				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.25478					
R Square	0.06491	Regression	12.	2839.28892	236.60741	9.29068
Standard Error	0.06491	Residual	1606.	40900.30589	25.46719	

TABLE 19. PREDICTION OF WORRY, NERVOUS BREAKDOWN, FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

REGRESSION COEFFICIENTS

Variable	B	Standardized Beta	Standard Error B	F	Sig.
Marital Status	1.93701	0.21970	0.62677	9.551	.01
White Female	2.18354	0.25953	0.78335	7.770	.01
Black Female	2.19806	0.16110	0.54129	16.490	.001
Age	-0.01477	-0.05225	0.00895	2.723	NS
SES	-0.00059	-0.00304	0.00715	0.007	NS
Black Male	-2.30162	-0.17477	0.98081	5.507	.05
Underreward	0.50676	0.04670	0.29280	2.995	NS
Black Female*Overreward	-1.70327	-0.09445	0.67406	6.385	.05
Overreward	0.22902	0.02892	0.24269	0.891	NS
Black Male*Age	0.05676	0.18759	0.02268	6.266	.05
White Female*SES	-0.02913	-0.21368	0.01185	6.041	.05
Age*Marital Status	-0.03587	-0.17025	0.01478	5.892	.05
White Female*Marital Status	1.06058	0.08734	0.45944	5.329	.05
(Constant)	1.42455				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.24428					
R Square	0.05967	Regression	12.	1475.65986	113.51230	7.83471
Standard Error	3.80636	Residual	1606.	23253.86701	14.48839	

TABLE 20. PREDICTION OF PSYCHOPATHOLOGY SCORE FROM THREE STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
Age	-0.05480	-0.22292	0.000601	83.099	.001
SES	-0.01707	-0.10078	0.00512	11.126	.001
Black Female	0.49139	0.04142	0.33347	2.171	NS
Marital Status	0.70764	0.09230	0.20509	11.905	.001
Black Male	0.00741	0.00065	0.35012	0.000	NS
White Female	-0.08358	-0.01142	0.22990	0.132	NS
Underreward	1.09344	0.11588	0.36560	8.945	.01
Overreward	-0.09101	-0.01322	0.20152	0.204	NS
Black Male*Marital Status	-1.73390	-0.08566	0.60568	8.195	.01
White Female*Underreward	-1.20184	-0.10192	0.47730	6.340	.05
(Constant)	7.90581				

ANALYSIS OF VARIANCE

			df	Sum of Square	Mean Square	F
Multiple R	0.28607					
R Square	0.08184	Regression	10.	1530.36700	153.03670	14.33246
Standard Error	3.26766	Residual	1608.	17169.62558	10.67763	

This finding, however, in which overreward had a positive beta coefficient for the depression and mood measures should not be interpreted as an indication that overreward is positively related to these measures. In Tables 16 and 17, it can be noted that SES*overreward is a statistically significant interaction term. For both the depression and mood measures, the negative beta coefficient of this interaction term more than cancels the positive beta coefficient for overreward, since the coefficient for SES*overreward must be multiplied by the mean SES score (59.876). When this computation is completed, the beta coefficient of overreward is -4.47990 for depression and -1.99207 for mood. When these coefficients are added to the beta coefficients for overreward it results in an overall negative effect of -0.07498 on the depression measure and -0.33094 on the mood measure. Additionally, on the depression measure, the statistically significant interaction term of black female*overreward represents the interaction of two dummy variables. It has a negative beta and can be interpreted as follows. Being both a black female and overrewarded contributed an average negative effect of 3.57 points on the depression measure after controlling for the effects of the other variables in the equation.

Thus, to the casual observer, overreward would appear

to have a positive effect on the depression and mood measures. But a more extensive analysis including the interaction terms indicates overreward actually has an overall negative effect on these measures. This negative effect, of course, is negative in comparision to the effect of the consistent group.

For the worry-nervous breakdown measure, the positive beta coefficient is small (0.22902) and is not statistically significant. This indicates that the scores on the worry-nervous breakdown measure for the overrewarded did not differ significantly from the status consistent group.

Having noted these findings, it should be emphasized that after controlling for the effect of the other status variables and allowing all statistically significant interaction terms to enter the equations there is a clearly discernible pattern in the data. With the single exception of the white females on the psychopathology measure, the underrewarded type always had the predicted effect. The underrewarded type scored higher on the mental health measures (indicating poorer mental health) than the consistent type. The overrewarded type tended to shift in its effect but generally scored lower than the consistent type on the mental health measures. These findings are in agreement with what one would expect from the perspective of distributive justice.

Four Status Inconsistency Types and Mental Health

As previously discussed, the four status inconsistency types provide the context for the first test for the predominant process in the relationship between status inconsistency and poor mental helath. Once again, the first item deserving attention is the distribution of the underrewarded type. These data are found in Tables 21 through 26. Without exception, on all six measures of mental health, the underrewarded type had both the highest mean score and the highest percentage scoring high. The impaired type had the second highest mean score on all six measures and the second highest percentage scoring high on five of the measures. On the HOS measure, the impaired type had the third highest percentage scoring high with the overrewarded having the second highest percentage scoring high. The low mean score and the low percentage scoring high varied between the overrewarded type and the consistent type. For the HOS and the anxiety measures, the consistent type had both the lowest mean score and the lowest percentage scoring high. The overrewarded type had the lowest mean score and the lowest percentage scoring high on the worry-nervous breakdown measure. For the depression, mood and psychopathology measures, the overrewarded type had the

TABLE 21. FOUR STATUS INCONSISTENCY TYPES BY THE HEALTH OPINION SURVEY SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	26.89	5.12	8.0
Overrewarded	241	26.07	5.07	4.6
Impaired	600	25.92	4.50	4.8
Consistent	544	25.83	4.46	4.2
TOTAL	1472	25.83	4.64	4.8
	F = 2.919		P = .033	

TABLE 22. FOUR STATUS INCONSISTENCY TYPES BY THE DEPRESSION SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	15.33	9.76	18.4
Overrewarded	241	12.48	8.95	9.5
Impaired	600	13.57	8.53	10.8
Consistent	544	12.62	8.40	8.6
TOTAL	1472	13.14	8.65	10.3
	F = 3.480		P = .015	

TABLE 23. FOUR STATUS INCONSISTENCY TYPES BY THE MOOD SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	7.68	6.07	16.1
Overrewarded	241	6.07	4.96	9.1
Impaired	600	6.92	5.01	11.2
Consistent	544	6.31	4.82	8.6
TOTAL	1472	6.60	5.02	10.2
	F = 3.667		P = .012	

TABLE 24. FOUR STATUS INCONSISTENCY TYPES BY THE ANXIETY SYMPTOM SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	5.61	5.95	6.9
Overrewarded	241	4.42	6.12	6.2
Impaired	600	4.43	4.95	6.7
Consistent	544	4.00	5.13	5.3
TOTAL	1472	4.34	5.29	6.1
	F = 2.499		P = .057	

TABLE 25. FOUR STATUS INCONSISTENCY TYPES BY THE WORRY, NERVOUS BREAKDOWN SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	2.47	5.35	16.1
Overrewarded	241	1.10	3.37	7.9
Impaired	600	1.69	4.14	11.8
Consistent	544	1.59	3.93	9.6
TOTAL	1472	1.60	4.34	10.6
	F = 2.671		P = .045	

TABLE 26. FOUR STATUS INCONSISTENCY TYPES BY THE PSYCHOPATHOLOGY SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded	87	5.99	4.27	19.5
Overrewarded	241	4.45	3.55	11.6
Impaired	600	4.99	3.51	14.5
Consistent	544	4.85	3.07	9.6
TOTAL	1472	4.91	3.43	12.5
	F = 4.524		P = .004	

lowest mean score, while the consistent type had the lowest percentage scoring high.

It was explained earlier that a finding in which the impaired type scored the highest on the mental health scores would favor the argument that having poor mental health may tend to result in being status inconsistent. A finding in which the underrewarded type scored highest would favor the argument that status inconsistency has a negative influence on mental health. Thus, this finding in which the underrewarded type had both the highest mean score and the highest percentage scoring high on every measure of mental health would seem to strongly favor the argument that status inconsistency has a negative effect on mental health.

When the above relationship was examined for the effects of the control variables on the mental health scores and the first order interaction terms were considered, the effect of the underrewarded type and impaired type remained basically the same. Once again, this procedure was accomplished through a regression analysis utilizing each of the mental health measures as dependent variables; the control variables, interaction terms, and the status inconsistency variables were used as the independent variables. This procedure allowed the other status variables to explain all the variance they could

before entering the status inconsistency variables. This information is found in Tables 27 through 32.

As with the previous set of regression equations, the first item worth noting is that the beta coefficients for the underrewarded type are positive in all the equations. On three of the measures the beta coefficients were statistically significant, for worry-nervous breakdown and psychopathology at the .01 level, and for the HOS at the .05 level. In a directly related theoretical concern it should be noted that the beta coefficients for the impaired type are actually negative for the mood, anxiety and psychopathology measures, while they are positive for the other three measures. But, none of the beta coefficients for the impaired type are statistically significant. For the overrewarded type, the beta coefficients were positive for the HOS, depression, mood and worry-nervous breakdown measures. The beta coefficients were significant at the .001 level for depression, the .01 level for HOS and mood, the .05 level for psychopathology, and they were not significant for anxiety and worry-nervous breakdown.

Once again, the statistical significance of the interaction terms complicated the analysis. The involvement of one of the status inconsistency variables as part of an interaction term indicates that the effect of

that variable is modified in the direction of, and relative to, the strength of the beta coefficient for the interaction term. Thus, the relationship between the dependent variable and the status inconsistency variable is dependent on the value of a third variable, which is the other product term in the interaction term. The change in the mean score on the dependent variable then becomes equivalent to the beta coefficient for the status inconsistency variable plus the product of the beta coefficient for the interaction term and the value of the third variable.

For example, for the measures of depression, mood, anxiety and psychopathology, the interaction term of black female*underreward was statistically significant. This indicates that on these measure the relationship between the underrewarded type of status inconsistency and the mental health measure is modified to a statistically significant extent if the subject involved is a black female. Since all these beta coefficients are positive, an increase in the score for black females is indicated. The amount of the increase would be relative to the size of the beta coefficient. Since this is the only statistically significant interaction term involving underreward, it would be expected that the effect of underreward would be significantly modified by an interaction term only when the case under consideration was a

black female, and then the modification would be in terms of an increase in the mental health score.

The impaired type was a component in only one statistically significant interaction term: for the equation predicting anxiety scores (Table 30). The interaction term of age*impaired was significant at the .05 level with a beta coefficient of 0.04140. This indicates that the relationship between the impaired type of status inconsistency and the anxiety measure was modified according to the level of a third variable, age. The positive beta indicates the modification was in a positive direction relative to the consistent type. In order to assess the strength of the interaction term, one would add to the beta coefficient for the impaired type the product of the beta coefficient for the interaction term and the subject's score on age. To assess a general effect for the sample, the score on age would be the mean age for the sample (39.792). When this computation is completed, the average effect for the age*impaired term is 1.64739. This is added to the beta coefficient for the impaired type (-1.47638) to yield an overall positive effect of 0.17101 for the impaired type. This positive effect of the impaired type, however, was still less than the positive beta coefficient of 1.19828 for the underrewarded type.

TABLE 27. PREDICTION OF HEALTH OPINION SURVEY SCORES FROM FOUR STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.04044	-0.17729	0.00711	32.310	.001
Marital Status	0.31573	0.03058	0.34399	0.845	NS
White Female	-0.00796	-0.00081	0.31599	0.001	NS
Black Male	-0.73784	-0.04785	0.41828	3.112	NS
Age	0.00016	0.00047	0.00834	0.000	NS
Black Female	0.12822	0.00803	0.46020	0.078	NS
Underreward	1.22128	0.06018	0.51028	5.730	.05
Overreward	2.84108	0.22098	1.03957	7.469	.01
Impaired	0.08050	0.00850	0.26338	0.093	NS
White Female*Marital Status	1.55094	0.10908	0.53338	8.455	.01
SES*Overreward	-0.04984	-0.20893	0.01833	7.390	.01
(Constant)	27.83439				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.26381					
R Square	0.06959	Regression	11.	2359.59570	214.50870	10.92766
Standard Error	4.43056	Residual	1607.	31545.21344	19.62988	

TABLE 28. PREDICTION OF DEPRESSION SCORES FROM FOUR STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.06340	-0.14836	0.01287	24.260	.001
Marital Status	2.75340	0.14236	0.70992	15.043	.001
White Female	1.66108	0.09000	0.57375	8.382	.01
Black Female	2.78798	0.09315	0.96616	10.361	.01
Age	-0.03491	-0.05630	0.01502	5.402	.05
Black Male	0.50507	0.01748	0.86976	0.337	NS
Underreward	1.73756	0.04570	0.97672	3.165	NS
Overreward	8.21868	0.34123	1.98437	17.154	.001
Impaired	0.21190	0.01194	0.47445	0.199	NS
SES*Overreward	-0.13971	-0.31266	0.03393	16.960	.001
White Female*Marital Status	2.29532	0.08579	1.01378	5.082	.05
Marital Status*Overreward	-4.24097	-0.06990	1.64059	6.682	.01
Black Female*Underreward	6.97437	0.06683	2.68593	6.742	.01
Black Male*Marital Status	-3.24795	-0.06361	1.56015	4.334	.05
(Constant)	16.12101				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.37671					
R Square	0.14191	Regression	14.	16886.92740	1206.20910	18.94760
Standard Error	7.97874	Residual	1604.	102111.03430	63.66025	

TABLE 29. PREDICTION OF MOOD SCORES FROM FOUR STATUS INCONSISTENCY TYPES CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.08336	-0.33635	0.01966	17.979	.001
Marital Status	1.45410	0.12963	0.41210	12.451	.001
White Female	0.91432	0.08542	0.33311	7.534	.01
Black Female	1.79652	0.10349	0.50394	12.709	.001
Age	-0.09400	-0.26134	0.02597	13.100	.001
Black Male	0.59930	0.03577	0.50486	1.409	NS
Underreward	0.90741	0.04115	0.56784	2.554	NS
Impaired	-0.00694	-0.00067	0.27600	0.001	NS
White Female*Marital Status	1.34403	0.08699	0.58853	5.215	.05
Overreward	3.74640	0.26819	1.15972	10.436	.01
SES*Overreward	-0.06675	-0.25755	0.01988	11.278	.001
Age*SES	0.00106	0.23745	0.00043	6.196	.05
Black Male*Marital Status	-1.86692	-0.06304	0.90559	4.250	.05
Black Female*Underreward	3.57936	0.05913	1.55926	5.270	.05
Marital Status*Overreward	-1.89280	0.05379	0.95229	3.951	.05
(Constant)	11.69332				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.37560					
R Square	0.14107	Regression	15.	5646.95654	376.46377	17.55205
Standard Error	4.63124	Residual	1603.	34381.82171	21.44842	

TABLE 30. PREDICTION OF ANXIETY SYMPTOM SCORES FROM FOUR STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.03094	-0.11942	0.00985	9.861	.01
Marital Status	0.18008	0.01536	0.39125	0.212	NS
White Female	2.43384	0.21751	1.04438	5.431	.05
Black Female	0.63994	0.03527	0.56427	1.286	NS
Black Male	-0.28891	-0.01650	0.48639	0.353	NS
Age	-0.02556	-0.06798	0.01280	3.989	.05
Underreward	1.19828	0.05199	0.62028	3.732	NS
Impaired	-1.47638	-0.13718	0.82814	3.178	NS
Overreward	-0.43080	-0.02950	1.99974	0.046	NS
SES*Overreward	-0.05563	-0.20533	0.02130	6.823	.01
White Female*SES	-0.03567	-0.19674	0.01576	5.124	.05
White Female* Marital Status	1.42073	0.08797	0.60725	5.474	.05
Age*Overreward	0.08104	0.26561	0.03106	6.807	.01
Black Female*Underreward	3.64978	0.05768	1.69579	4.632	.05
Age*Impaired	0.04140	0.15806	0.02022	4.190	.05
(Constant)	6.57536				

		ANALYSIS OF VARIANCE				
			df	Sum of Squares	Mean Square	F
Multiple R	0.26950					
R Square	0.07263	Regression	15.	3176.75472	211.78365	8.36946
Standard Error	5.03034	Residual	1603.	40562.84009	25.30433	

TABLE 31. PREDICTION OF WORRY, NERVOUS BREAKDOWN SCORES FROM FOUR STATUS INCONSISTENCY TYPES VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
Marital Status	2.07114	0.23491	0.62751	10.894	.001
White Female	2.32280	0.27608	0.79036	8.637	.01
Black Female	1.32576	0.09717	0.41248	10.331	.01
Age	-0.01542	-0.05454	0.00901	2.930	NS
SES	0.00049	0.00252	0.00714	0.005	NS
Black Male	-2.24182	-0.17203	0.98635	5.166	.05
Underreward	1.15839	0.06684	0.44102	6.899	.01
Impaired	0.13898	0.01717	0.22629	0.377	NS
Overreward	0.10406	0.00948	0.32164	0.105	NS
Age*Marital Status	-0.04046	-0.19206	0.01477	7.502	.01
White Female*SES	-0.03082	-0.22606	0.01190	6.705	.01
Black Male*Age	0.05639	0.18635	0.02276	6.141	.05
White Female*Marital Status	1.09404	0.09009	0.45993	5.658	.05
(Constant)	1.41384				

ANALYSIS OF VARIANCE

			df	Sum of Square	Mean Square	F
Multiple R	0.24016					
R Square	0.05768	Regression	13.	1426.28784	109.71445	7.55653
Standard Error	3.81040	Residual	1605.	23303.23903	14.51915	

TABLE 32. PREDICTION OF PSYCHOPATHOLOGY SCORES FROM FOUR STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
Age	-0.06220	-0.25301	0.00644	93.298	.001
SES	-0.01827	-0.10784	0.00501	13.319	.001
Black Female	0.27158	0.02289	0.34741	0.611	NS
Marital Status	0.84363	0.11003	0.20913	16.273	.001
Black Male	-0.46578	-0.04067	0.39283	1.406	NS
White Female	-0.27115	-0.03706	0.20211	1.800	NS
Underreward	1.10875	0.07357	0.39681	7.807	.01
Impaired	-0.10227	-0.01453	0.19187	0.284	NS
Overreward	-2.00502	-0.20999	0.91343	4.818	.05
Black Male*Marital Status	-1.38141	-0.06824	0.61054	5.119	.05
Black Female*Underreward	2.94198	0.07111	1.09072	7.275	.01
Age*Overreward	0.04125	0.20675	0.01911	4.658	.05
Marital Status*Overreward	-1.45276	-0.06040	0.64937	5.005	.05
Black Male*Overreward	1.39924	0.06468	0.65248	4.599	.05
(Constant)	8.33721				

ANALYSIS OF VARIANCE

			df	Sum of Square	Mean Square	F
Multiple R	0.31246					
R Square	0.09763	Regression	14.	1825.70785	130.40770	12.39602
Standard Error	3.24347	Residual	1604.	16874.28474	10.52013	

As was previously indicated, the primary purpose of this particular analysis was to compare the effect of the underrewarded type and the impaired type on the mental health scores. The underrewarded type was involved with only one significant interaction term, black female*underreward, on four measures, each contributing a positive effect. Since all the beta coefficients for underreward were already positive, it would seem that these interaction terms would have relatively little effect on the comparison, except to increase an already positive effect in the case of black females. The impaired type was also involved in only one significant interaction term, age*impaired, but on only one measure, anxiety, on which it contributed a positive effect. But including the positive effect of the age*impaired term, the underrewarded type still had a greater positive effect on the anxiety scores than did the impaired type.

Thus, after controlling the analysis for the effects of the other status variables and allowing the statistically significant interaction terms to enter the equation, the comparison between the underrewarded type and the impaired type remained basically unaltered. The underrewarded type always had a positive effect, and in every equation the beta coefficients for the underrewarded type were always much larger than the beta coefficients for the impaired type. In fact, in three equations the

coefficients for the impaired type were actually negative, indicating lower scores on these three mental health measures than for the consistent type.

Taking these factors into consideration with reference to the first test for the predominant process in the relationship between status inconsistency and poor mental health discussed in Chapter 3 one would conclude the following. Since the underrewarded type of inconsistency always had a much stronger effect on the mental health measures than did the impaired type, this analysis would strongly favor the argument that status inconsistency has a negative influence on mental health.

Six Status Inconsistency Types and Mental Health

As noted in Chapter 3, the six status inconsistency types were constructed for the purpose of providing a context for the second test for the predominant process in the relationship between status inconsistency and poor mental health. The underlying premise of the test was the work of Thomas (Janowitz, 1966) and Wolff (1953), who maintained that perception of the supposed causal factor plays an important role in a relationship. Thus, if perception of underreward has a positive effect on the relationship between status inconsistency and the mental

health scores, the argument that status inconsistency has a negative effect on mental health would be favored. If the perception of underreward has little or no effect on the relationship between status inconsistency and the mental health scores, the argument that poor mental health results in status inconsistency would be favored.

The data assessing the uncontrolled relationship between the six types of status inconsistency and the mental health scores are provided in Tables 33 through 38. The first point of interest is that the underrewarded type who perceived themselves as underrewarded had the highest mean score on all the measures of mental health. This same type of inconsistency had the highest percentage scoring high on five of the six mental health measures, the psychopathology measure being the only exception. These findings are in agreement with the perspective of distributive justice which was presented earlier.

A serendipitous finding can also be noted in these tables. It was expected that among the underrewarded type those who perceived themselves as underrewarded would score higher on the mental health measures than those who did not perceive themselves as underrewarded. However, it was not necessarily expected that those who perceived themselves as underrewarded would score the highest on the mental health measures regardless of what

TABLE 33. SIX STATUS INCONSISTENCY TYPES BY THE HEALTH OPINION SURVEY SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	27.19	5.29	9.7
Underrewarded No Perceived Underreward	138	25.64	3.78	3.6
Overrewarded Perceived Underreward	146	27.08	5.74	7.5
Overrewarded No Perceived Underreward	513	25.64	4.48	4.1
Consistent Perceived Underreward	130	26.65	5.49	8.5
Consistent No Perceived Underreward	402	25.06	4.02	2.7
TOTAL	1432	25.83	4.66	4.8
	F = 7.243		P = .001	

TABLE 34. SIX STATUS INCONSISTENCY TYPES BY THE DEPRESSION SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	16.33	9.26	19.4
Underrewarded No Perceived Underreward	138	13.93	7.59	11.6
Overrewarded Perceived Underreward	146	14.92	10.01	15.1
Overrewarded No Perceived Underreward	513	12.35	8.53	8.8
Consistent Perceived Underreward	130	15.03	9.84	15.4
Consistent No Perceived Underreward	402	11.80	7.83	6.7
TOTAL	1432	13.14	8.71	10.5
	F = 8.377		P = .001	

TABLE 35. SIX STATUS INCONSISTENCY TYPES BY THE MOOD SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	8.64	5.46	16.5
Underrewarded No Perceived Underreward	138	6.81	4.69	8.7
Overrewarded Perceived Underreward	146	7.53	5.48	16.4
Overrewarded No Perceived Underreward	513	6.18	5.02	9.6
Consistent Perceived Underreward	130	7.57	5.69	12.3
Consistent No Perceived Underreward	402	5.89	4.46	7.2
TOTAL	1432	6.59	5.04	10.3
	F = 7.891		P = .001	

TABLE 36. SIX STATUS INCONSISTENCY TYPES BY THE ANXIETY SYMPTOM SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	5.97	6.24	12.6
Underrewarded No Perceived Underreward	138	4.45	4.32	3.6
Overrewarded Perceived Underreward	146	5.26	6.99	11.0
Overrewarded No Perceived Underreward	513	4.10	4.91	5.1
Consistent Perceived Underreward	130	5.01	6.46	10.0
Consistent No Perceived Underreward	402	3.66	4.55	3.7
TOTAL	1432	4.35	5.31	6.1
	F = 4.814		P = .001	

TABLE 37. SIX STATUS INCONSISTENCY TYPES BY THE WORRY, NERVOUS BREAKDOWN SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	2.86	5.42	19.4
Underrewarded No Perceived Underreward	138	1.78	3.96	12.3
Overrewarded Perceived Underreward	146	1.69	4.48	8.9
Overrewarded No Perceived Underreward	513	1.32	3.75	9.9
Consistent Perceived Underreward	130	2.08	5.13	13.8
Consistent No Perceived Underreward	402	1.47	3.50	8.5
TOTAL	1432	1.62	4.08	10.7
	F = 2.997		P = .011	

TABLE 38. SIX STATUS INCONSISTENCY TYPES BY THE PSYCHOPATHOLOGY SCORE

Inconsistency	N	Mean	S.D.	% High
Underrewarded Perceived Underreward	103	5.71	3.33	14.6
Underrewarded No Perceived Underreward	138	5.16	3.36	13.0
Overrewarded Perceived Underreward	146	5.13	4.25	19.9
Overrewarded No Perceived Underreward	513	4.72	3.56	13.3
Consistent Perceived Underreward	130	5.42	3.59	15.4
Consistent No Perceived Underreward	402	4.65	2.89	7.7
TOTAL	1432	4.92	3.44	12.6
	F = 2.737		P = .018	

more objective measures of underrewarded, overrewarded or consistent status indicated. But such is the general indication of these tables. With only one exception, the second, fourth and sixth categories in these tables, which represent respectively the underrewarded, overrewarded and consistent individuals who perceived themselves as underrewarded, had a higher mean score and a higher percentage scoring high on the six measures of mental health than did the first, third and fifth categories, which represent the underrewarded, overrewarded and consistent individuals who did not perceive themselves as underrewarded. The exception which did occur was in Table 37 on the worry, nervous breakdown score. The overrewarded who did not perceive themselves as underrewarded had a higher percentage scoring high by one percentage point than did the overrewarded who did perceive themselves as underrewarded.

Thus, the perception of underreward had an even stronger effect than was anticipated. It should be noted, however, that being underrewarded was associated with the greatest increase in mental health scores when both objective and subjective measures indicated underrewardedness (underrewarded and perceived underreward). Considering the unanticipated strong effect of the perception of underreward, the second test for the predominant process

in the relationship between status inconsistency and poor mental health developed in Chapter 3 would certainly provide strong evidence in favor of the argument that status inconsistency has a negative effect on mental health.

In order to introduce controls for the effects of other status variables on the measures of mental health, this analysis was also put into a regression equation format. As before, the other status variables were allowed to account for all the variance they could before the status inconsistency variables were introduced to determine if they could account for a significant proportion of the remaining variance. This analysis is presented in Tables 39 through 44.

The results of the regression analysis which controlled for the effects of other status variables on the mental health scores is in basic agreement with the uncontrolled analysis presented previously. This does not appear to be true upon first examination of Tables 39 through 44. But when the statistically significant interaction terms are considered, especially the interaction with age, the results become more consistent with the expectations of distributive justice.

First, it should be noted that in all six equations the two categories of no perceived underreward

TABLE 39. PREDICTION OF HEALTH OPINION SURVEY SCORES FROM SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.04465	-0.19574	0.00685	42.520	.001
Marital Status	0.36039	0.03491	0.33862	1.133	NS
White Female	-0.15469	-0.01570	0.32218	0.231	NS
Black Male	-2.98522	-0.19359	1.13516	6.916	.01
Age	0.00341	-0.01029	0.00939	0.131	NS
Black Female	-0.14929	-0.00934	0.45157	0.109	NS
Underrewarded-Perceived Underreward	-1.25182	-0.06677	1.22689	1.041	NS
Consistent-Perceived Underreward	5.83806	0.34668	1.32265	19.482	.001
Overrewarded-Perceived Underreward	-1.72558	-0.10801	1.27130	1.842	NS
Underrewarded-No Perceived Underreward	0.24379	0.01488	0.42169	0.334	NS
Overrewarded-No Perceived Underreward	0.08831	0.00898	0.28632	0.095	NS
Age*Consistent-Perceived Underreward	-0.11660	-0.27550	0.03301	12.473	.001
White Female*Marital Status	1.39882	0.09838	0.52761	7.029	.01
Age*Underrewarded-Perceived Underreward	0.08090	0.16687	0.03145	6.618	.05
Age*Overrewarded-Perceived Underreward	0.06839	0.18767	0.02883	5.628	.05
Black Male*Age	0.05284	0.14914	0.02616	4.079	.05
(Constant)	28.08669				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.30766					
R Square	0.09466	Regression	16.	3209.30657	200.58166	10.46837
Standard Error	4.37730	Residual	1602.	30695.50258	19.16074	

TABLE 40. PREDICTION OF DEPRESSION SCORES FROM SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.08014	-0.18755	0.01243	41.565	.001
Marital Status	2.27097	0.11742	0.68533	10.981	.001
White Female	1.17554	0.06369	0.58913	3.982	.05
Black Female	2.21912	0.07414	0.85655	6.712	.01
Age	-0.02330	-0.03756	0.01597	2.129	NS
Black Male	0.65294	0.02260	0.86123	0.575	NS
Consistent-Perceived Underreward	8.36129	0.26503	2.39774	12.160	.001
Underrewarded-Perceived Underreward	2.25815	0.06429	0.92527	5.956	.05
Overrewarded-Perceived Underreward	-2.78196	-0.09295	2.29463	1.470	NS
Underrewarded-No Perceived Underreward	1.29206	0.04208	0.76754	2.834	NS
White Female*Marital Status	2.55795	0.09603	1.00500	6.478	.05
Age*Consisten-Perceived Underreward	-0.14879	-0.18767	0.05987	6.177	.05
Overrewarded-No Perceived Underreward	0.03260	0.01177	0.52068	0.004	NS
Black Male*Marital Status	-3.77731	-0.07397	1.54737	5.959	.05
Black Female*Underrewarded-Perceived Underreward	5.47436	0.06118	2.35011	5.426	.05
Age*Overreward-Perceived Underreward	0.10259	0.15026	0.05197	3.896	.05
(Constant)	16.59639				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.38226					
R Square	0.14612	Regression	16.	17388.03851	1086.75241	17.13393
Standard Error	4.61253	Residual	1602.	101609.92320	63.42692	

TABLE 41. PREDICTION OF MOOD SCORES AND SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	0.09516	-0.38398	0.02025	22.082	.001
Marital Status	1.20700	0.10760	0.39707	9.240	.01
White Female	0.07981	0.00746	0.38933	0.042	NS
Black Female	1.76766	0.10183	0.48087	13.513	.001
Age	-0.09425	-0.26202	0.02685	12.316	.001
Black Male	0.70094	0.04183	0.49902	1.973	NS
Underrewarded-Perceived Underreward	1.83943	0.09029	0.50227	13.412	.001
Consistent-Perceived Underreward	3.08383	0.16854	1.46002	4.461	.05
Overrewarded-Perceived Underreward	-2.39338	-0.13787	1.36948	3.054	NS
Underrewarded-No Perceived Underreward	0.47576	0.02672	0.44697	1.133	NS
Overrewarded-No Perceived Underreward	-0.52504	-0.04913	0.33362	2.477	NS
White Female*Marital Status	1.50372	0.09733	0.58321	6.648	.01
White Female*Consistent-Perceived Underreward	2.24437	0.07733	0.89766	6.251	.05
Black Male*Marital Status	-2.10270	-0.07100	0.89623	5.504	.05
Age*Consistent-Perceived Underreward	-0.07085	0.15407	0.03481	4.144	.05
Age*SES	0.00113	0.25296	0.00043	6.843	.01
White Female*Overrewarded-No Perceived Underreward	1.39216	0.06175	0.64099	4.717	.05
Age*Overrewarded-Perceived Underreward	0.06510	0.16440	0.03090	4.439	.05
(Constant)	12.45146				

			ANALYSIS OF VARIANCE			
			df	Sum of Squares	Mean Square	F
Multiple R	0.38677					
R Square	0.14959	Regression	18.	5988.07965	332.67109	15.63639
Standard Error	4.61253	Residual	1600.	34040.69861	21.27544	

TABLE 42. PREDICTION OF ANXIETY SYMPTOM SCORES FROM SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
SES	-0.03480	-0.13432	0.00938	13.765	.001
Marital Status	0.15788	0.01346	0.38786	0.166	NS
White Female	2.46478	0.22028	1.02689	5.761	.05
Black Female	0.76488	0.04215	0.53254	2.063	NS
Black Male	-2.95115	-0.16849	1.29882	5.163	.05
Age	-0.00792	-0.02107	0.01075	0.543	NS
Underrewarded-Perceived Underreward	-0.70456	-0.03308	1.40377	0.252	NS
Consistent-Perceived Underreward	5.24051	0.27399	1.51362	11.987	.001
Overrewarded-Perceived Underreward	-2.91546	-0.16067	1.45533	4.013	.05
Underrewarded-No Perceived Underreward	0.57926	0.03112	0.48521	1.425	NS
Overrewarded-No Perceived Underreward	0.07082	0.00634	0.32950	0.046	NS
Age*Consistent-Perceived Underreward	-0.10468	-0.21777	0.03777	7.679	.01
Age*Overrewarded-Perceived Underreward	0.08914	0.21535	0.03299	7.302	.01
White Female*SES	-0.03929	-0.21667	0.01556	6.377	.05
Black Male*Age	0.06673	0.16582	0.03005	4.932	.05
White Female*Marital Status	1.32950	0.08232	0.60429	4.840	.05
Age*Underrewarded-Perceived Underreward	0.07195	0.13065	0.03599	3.996	.05
(Constant)	5.98703				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.23611					
R Square	0.08186	Regression	17.	3580.49669	210.61745	8.39657
Standard Error	5.00837	Residual	1598	40159.09813	25.08376	

TABLE 43. PREDICTION OF WORRY, NERVOUS BREAKDOWN SCORES FROM SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
Marital Status	3.54045	0.40156	0.97540	13.175	.001
White Female	0.11892	0.01413	0.31082	0.146	NS
Black Female	1.47996	0.10847	0.48757	10.019	.01
Age	-0.00967	-0.03420	0.00911	1.126	NS
SES	-0.00427	-0.02192	0.00670	0.407	NS
Black Male	-2.75941	-0.21021	0.97746	8.022	.01
Underrewarded-Perceived Underreward	0.95942	0.05992	0.42640	5.016	.05
Consistent-Perceived Underreward	3.69930	0.25722	1.13541	10.615	.01
Overrewarded-Perceived Underreward	0.82059	0.06014	0.43552	3.553	NS
Underrewarded-No Perceived Underreward	0.32339	0.02311	0.36571	0.782	NS
Overrewarded-No Perceived Underreward	-0.03302	-0.00393	0.25223	0.014	NS
White Female*Overrewarded-No Perceived Underreward	1.48614	0.05396	0.52990	7.985	.01
Age*Consistent-Perceived Underreward	-0.08008	-0.22156	0.02833	7.982	.01
Marital Status*Overrewarded-Perceived Underreward	-2.38375	-0.09468	0.77374	9.491	.01
Black Male*Age	0.05804	0.19180	0.02244	6.657	.01
Age*Marital Status	-0.03957	-0.18782	0.01482	7.126	.01
White Female*Marital Status	0.93863	0.08225	0.43954	4.724	.05
Black Male*Underrewarded-Perceived Underreward	3.15380	0.05658	1.43595	4.824	.05
Black Female*Overrewarded-No Perceived Underreward	-1.55526	-0.08951	0.71156	4.777	.05
SES*Marital Status	-0.02229	-0.14891	0.01133	3.868	.05
(Constant)	1.50407				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.28196					
R Square	0.07950	Regression	20.	1965.98804	98.29925	6.9006
Standard Error	3.77426	Residual	1596	22763.54183	14.24502	

TABLE 44. PREDICTION OF PSYCHOPATHOLOGY SCORES FROM SIX STATUS INCONSISTENCY TYPES, CONTROL VARIABLES AND INTERACTION TERMS

Variable	REGRESSION COEFFICIENTS B	Standardized Beta	Standard Error B	F	Sig.
Age	-0.05817	-0.23660	0.00628	85.742	.001
SES	-0.01640	-0.09684	0.00509	10.380	.01
Black Female	0.80952	0.06823	0.35976	5.063	.05
Marital Status	0.72284	0.09428	0.20461	12.480	.001
Black Male	-0.07845	-0.00685	0.35100	0.050	NS
White Female	-0.15501	-0.02119	0.21996	0.497	NS
Consistent-Perceived Underreward	0.60649	0.04850	0.31690	3.663	NS
Underrewarded-Perceived Underreward	0.64137	0.04606	0.35421	3.279	NS
Underrewarded-No Perceived Underreward	1.23632	0.10158	0.48117	6.602	.05
Overrewarded-Perceived Underreward	-1.51133	-0.12738	0.94677	2.548	NS
Overrewarded-No Perceived Underreward	-0.02279	-0.00312	0.21364	0.011	NS
Black Male*Marital Status	-1.66943	-0.08247	0.60496	7.615	.01
Black Female*Overrewarded-Perceived Underreward	-1.82109	-.06862	0.76592	5.653	.05
Age*Overrewarded-Perceived Underreward	0.04794	0.17715	0.02120	5.115	.05
White Female*Underrewarded-No Perceived Underreward	-1.34540	-0.08878	0.61005	4.864	.05
(Constant)	7.88613				

ANALYSIS OF VARIANCE

			df	Sum of Squares	Mean Square	F
Multiple R	0.29981					
R Square	0.08989	Regression	15.	1680.86983	112.05799	10.55454
Standard Error	3.25838	Residual	1603.	17019.12276	10.61704	

(underrewarded-no perceived underreward and overreward-no perceived underreward) had a statistically significant effect on only one occasion.* In Table 44, underrewarded-no perceived underreward had a beta of 1.23632, which was statistically significant at the .05 level. Being underrewarded, even if it was not perceived, was associated with a 1.23632 point increase on the psychopathology measure. This was true except for white females since the statistically significant interaction term of white female*underrewarded-no perceived underreward had a negative beta of -1.34540, which was more than enough to cancel the previous increase. But even these two variables which tended to have low non significant beta coefficients conformed to the expectations of distributive justice. The underrewarded who did not perceive themselves as underrewarded always had larger positive beta coefficients than the overrewarded who did not perceive themselves as underrewarded and had negative beta coefficients on three of the six measures of mental health.

The three categories in which underreward was perceived (1. underrewarded-perceived underreward, 2. consistent-perceived underreward and 3. overrewarded-perceived

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* The category of consistent-no perceived underreward was the suppressed category in these regression equations to which the other five categories in the six status inconsistency types were compared.

underreward) must be considered in relation to their interaction with age, since age was involved in a statistically significant interaction term with at least one of these three variables in all six regression equations. For example, in Table 39 for the prediction of HOS scores the beta coefficients for the three variables for which underreward was perceived were as follows:

underrewarded-perceived underreward	-1.25182
consistent-perceived underreward	5.83806
overrewarded-perceived underreward	-1.72558

An examination of only these simple beta coefficients would indicate a reduction in HOS scores for the underrewarded and overrewarded who perceived themselves as underrewarded and a large increase (5.83806) for the consistents who perceived themselves as underrewarded. All three of these variables, however, were involved in a statistically significant interaction term with age. The beta coefficients for these interaction terms were as follows:

age*underrewarded-perceived underreward	0.08090
age*consistent-perceived underreward	-0.11660
age*overrewarded-perceived underreward	0.06839

In order to control for the effects of the interaction of age with these three variables, the average effect for the sample was obtained by multiplying the beta coefficients for the three interaction terms by the mean age for the sample (39.792) and adding that product to the

original beta coefficients for the three variables in which underreward was perceived. To take an individual example, the beta coefficient for age*underrewarded-perceived underreward (0.08090) was multiplied by the mean age for the sample (39.792). This product (3.21917) was added to the beta coefficient for underrewarded-perceived underreward (-1.25182), which resulted in an overall effect of a 1.96735 point increase in HOS scores for the underrewarded who perceived themselves as underrewarded. When this procedure is done for the three variables involving perceived underreward on the HOS measure, the results are as follows:

underrewarded-perceived underreward	1.96735
consistent-perceived underreward	1.19831
overrewarded-perceived underreward	0.99575

Thus, when the interaction of age is considered the results obtained from the six status inconsistency types conform to the results obtained previously from the three status inconsistency types when the interaction of SES and overreward is considered. On the HOS measure for the three variables on which underreward was perceived, the underrewarded scored the highest; the overrewarded scored the lowest, and the consistents scored in the middle.

When this same type of analysis was carried out for all six regression equations, the results were basically

the same as illustrated for the HOS measure. In Table 45, the overall effect of the three variables for which underreward was perceived is displayed after considering the interaction with age. An examination of Table 45 indicates that the effect of the underrewarded, consistent and overrewarded who perceived themselves as underrewarded was always positive on all six mental health measures, indicating an increase in the mental scores. On five of the six mental health measure the underrewarded who perceived themselves as underrewarded had the greatest increase in mental health scores. The single exception was for the depression measure, where the consistents who perceived themselves as underrewarded scored 0.18249 points higher. Likewise, on five of the six mental health measures the overrewarded who perceived themselves as underrewarded had the smallest increase in mental health scores. The single exception was for the worry-nervous breakdown measure, where the consistents who perceived themselves as underrewarded scored 0.30783 points higher. The consistents who perceived themselves as underrewarded were in the middle except for the two exceptions noted for depression and worry-nervous breakdown measures.

There were many other statistically significant interaction terms in Tables 39 through 44 which have not been discussed. This is because all the other interaction

TABLE 45. BETA COEFFICIENTS* ON SIX MEASURES OF MENTAL HEALTH FOR THE VARIABLES OF UNDERREWARDED, CONSISTENT AND OVERREWARDED WHO PERCEIVED THEMSELVES AS UNDERREWARDED AFTER CONSIDERING THE INTERACTION WITH AGE AS CALCULATED FROM TABLES 39 THROUGH 44

Variables	HOS	Depression	Mood	Anxiety Symptom	Worry Nervous Breakdown	Psycho-pathology
Underrewarded-Perceived Underreward	1.96735	2.25815	1.83943	2.15847	0.95942	0.64137
Consistent-Perceived Underreward	1.19831	2.44064	0.26460	1.07508	0.51276	0.60649
Overrewarded-Perceived Underreward	0.99579	1.30030	0.19708	0.63160	0.82059	0.39630

* These beta coefficients represent the increment in the six mental health scores relative to the suppressed category for the six status inconsistency types in Tables 39 through 44 which was consistent-no perceived underreward.

terms involving one of the six status inconsistency types represent an interaction of two dummy variables. As such, they affect only a particular subgroup within the sample, such as, black males or white females. They do not affect the entire sample as does the interaction of one of the six status inconsistency types with a continuous variable such as age. Additionally, with only two exceptions, all these interaction terms were positive, indicating a further increase in the mental health score for the particular subgroup involved in the interaction term. One of the two exceptions was in Table 43 for the worry, nervous breakdown measure, where the variable marital status*overrewarded-perceived underreward had a statistically significant negative beta coefficient of -2.38375. This indicates that for those who are single a -2.38375 points must be added to the beta for overrewarded-perceived underreward (o.82059); this yields an overall negative effect of -1.56316 points for those who are single. The other exception was in Table 44 for the psychopathology measure, where the variable black female overrewarded-perceived underreward had a statistically significant negative beta coefficient of -1.82109. This indicates that for black females a -1.82109 points must be added to the beta for overrewarded-perceived underreward (0.39630); this yields an overall negative effect

of -1.42479 points for black females.

Thus, the three variables for which underreward was perceived resulted in the greatest increase in mental health scores, indicating a negative effect on mental health. Within these three variables for which underreward was perceived, the underrewarded had the highest scores, the overrewarded the lowest scores and the consistents the middle scores. For the two variables for which underreward was not perceived, the beta coefficients were generally smaller and only one was statistically significant. But even for these two variables, the underrewarded always scored higher on all six measures of mental health than did the overrewarded who did not perceive themselves as underrewarded.

This analysis found the perception of underreward to be a very powerful variable in relation to status inconsistency. Therefore, the second test for the predominant process in the relationship between status inconsistency and poor mental health discussed in Chapter 3 would provide strong support for the argument that status inconsistency has a negative effect on mental health. This is because the perception of underreward did have a strong effect, rather than little or no effect, as would be the expectation if the predominant process was that poor mental health resulted in status inconsistency.

Analysis of Propositions

Directing attention toward the four propositions advanced in the theory chapter provides the following interpretations. The first proposition was stated as follows:

> The underrewarded type of status inconsistency is associated with poor mental health.

All the findings of this research would support this proposition. In almost every instance, in the direct relationship between underreward and the mental health measures not utilizing the control variables, the underrewarded had the highest mean score and the highest percentage scoring high. In the few cases where the underrewarded was not the high, it was the second high. Never did the underrewarded score below the consistents.

The second proposition was stated as follows:

> The overrewarded type of ststua inconsistency is not associated with poor mental health.

The findings concerning this proposition are not as clear as for the first proposition. In the direct analysis between status inconsistency and mental health, which did not utilize any controls, the overrewarded type repeatedly scored between the underrewarded and the consistents, indicating that their scores on the mental health measures tended to be higher than the consistents, but not as high as the underrewarded. It should be noted,

however, that most of the time the scores for the over-rewarded were closer to the consistents than to the under-rewarded. These patterns would tend to favor proposition two, but the direct support for it is certainly not as strong as for proposition one.

The third proposition stated the following:

> The relationship between status inconsistency and mental health identified in the first two propositions will continue to exist after controlling for the effects of race, sex, SES, age, and marital status on mental health.

The support for this proposition as it relates to the first proposition is quite strong. There were 18 regression equations which utilized six different measures of mental health as dependent variables and three different measures of status inconcistency, each in a separate equation. All the equations included the control variables of race, sex, SES, age and marital status, as well as all the statistically significant first order interaction terms. In all 18 the beta coefficients for underreward were positive relative to the consistent group. In the equation for psychopathology in Table 20, a statistically significant interaction term made the beta coefficient for underreward a small negative effect for white females. Among these 18 positive beta coefficients, 10 were statistically significant and eight were not. These results would seem to provide strong

support for the third proposition relative to proposition one.

When the data are examined concerning proposition three as it relates to proposition two, very interesting results are obtained. When the analysis of proposition two was undertaken, the data were unclear but tended to provide support. When the control variables and interaction terms are included, the support for proposition two becomes much more clear. An analysis of the eighteen regression equations indicated that in five of the first twelve regressions, overreward was negatively related to the mental health scores (Tables 15, 18, 20, 30 and 32), and two of these were statistically significant at the .05 level (Tables 18 and 32). Additionally, in another five of the first twelve regressions, overreward was negatively related to the mental health scores (Tables 16, 17, 27, 28 and 29), when the average effect of the interaction of SES and overreward was considered. Only for the worry-nervous breakdown measure in Tables 19 and 31, did overreward have a positive effect, but in both cases it was not statistically significant. In Tables 39 through 44, overreward-perceived underreward always had a positive effect after the interaction with age was considered, while overreward-no perceived underreward had a positive effect in three equations and a negative

effect in three equations. Overall then, overreward as compared to the consistents, was negatively related to the mental health measures in 10 of the first 12 regression equations, including the effects of the control variables and the interaction terms, and two of these associations were statistically significant. Overreward as compared to the consistents, was positively related to two of the mental health measures in these equations. But none of these positive relationships were statistically significant. Thus, when the effects of the interaction between SES and overreward are considered, there is strong support for proposition three in relation to proposition two. This also provides a serendipitious finding concerning the relationship between overreward, SES and mental health. As SES increases, overreward tends to have a negative effect on these mental health measures. This would indicate that as SES increases the effect of the overrewarded type of status inconsistency on mental health tends to be positive.

The fourth proposition was stated as follows:

> The predominant process in the relationship between status inconsistency and poor mental health is that the underrewarded type of status inconsistency has a negative influence on mental health, rather than poor mental health influencing the development of status inconsistency.

The two independent tests developed to test this proposition

provided strong support in favor of the proposition. In the first test, for all six measures of mental health the underrewarded had a higher mean score and a higher percentage scoring high than did the impaired type. This finding provides support for proposition four, since as previously noted the underrewarded scoring highest would favor proposition four while the impaired scoring highest would go against proposition four.

When the control variables and interaction terms were included in the regression equations, the following results were obtained. The impaired type had negative beta coefficients on three measures of mental health and positive coefficients on the other three measures, but none of these were statistically significantly different from the consistents. The underrewarded always had positive beta coefficients, and two of the six were statistically significant. The results from both the uncontrolled and controlled analysis in the first test provide support for proposition four.

The second test to determine the predominant process in the relationship between status inconsistency and poor mental health also supported proposition four. In the uncontrolled analysis the underrewarded who perceived themselves as underrewarded always had the highest mean score, and on five of the six mental health measures they

had the highest percentage scoring high. As previously noted, a finding in which perception of underreward increased the mental health scores would favor proposition four, while a finding in which perception of underreward made little or no difference would go against proposition four.

When the six status inconsistency types were entered into a regression equation along with the control variables and statistically significant interaction terms, interesting results were obtained. Age was found to be involved in several statistically significant interaction terms. After the interaction effect of age was considered, the underrewarded, consistents and overrewarded who perceived themselves as underrewarded always had positive and generally higher beta coefficients on all six measures of mental health When underreward was not perceived the beta coefficients were generally small and not statistically significant. Among those who subjectively perceived themselves as underrewarded, the beta coefficients were highest for those objectively measured as underrewarded, lowest for those objectively measured as overrewarded and in the middle for those objectively measured as consistent. Thus, regardless of what more objective measures indicated, those who perceived themselves as underrewarded tended to score highest, indicating poor

mental health. But among those who perceived themselves as underrewarded, the distribution of scores from low to high tended to conform to the expectations of distributive justice.

These results provide strong support for proposition four since the perception of underreward strongly influenced the relationship between status inconsistency and mental health rather than having little or not effect on that relationship. Additionally, a serendipitous finding resulted from this test. The perception of underreward was found to be highly related to the mental health measures regardless of what more objective measures indicated. This was expected to occur as part of the test of proposition four among those who were objectively measured as underrewarded. It was not expected to occur to the degree which it did among those who were objectively measured as consistent or overrewarded. This indicates that the perception of underreward always resulted in an increase in the six mental health scores, indicating a strong negative effect on mental health and providing further support for proposition four.

CHAPTER 6
CONCLUSION

Summary

Chapter 2, Review of the Literature, examined research which attempted to relate status inconsistency to twenty different dependent variables. Additionally, status inconsistency of the underrewarded type, measured by discrepancies in investments and rewards, was found to be related to individual unrest (Geshwender, 1968a), self-esteem (Kasl and Cobb, 1969a) and social stress (Meile and Haese, 1969).

In Chapter 3, Theory, a theoretical perspective relating status inconsistency to mental health was developed from the broad perspective of structural functionalism. This general approach was further specified by the distributive justice perspective and supplemented by the perspectives of expectancy congruence and relative deprivation. Additionally, two independent tests to aid in assessing the predominant process in the relationship between status inconsistency and poor mental health were developed and explained.

Chapter 4, Methodology, examined some of the general criticisms of status inconsistency research and specified how this particular research would deal with those issues.

The measures of status inconsistency were developed, and the mental health measures were discussed. The statistical procedures to be utilized in the analysis were presented; and the control variables and the procedure for implementing the controls were explained.

In Chapter 5, Findings and Discussion, the relationship between SES and status inconsistency as measured in this analysis was assessed and status inconsistency was demonstrated to vary independently of SES. The 13 status inconsistency types were examined, and the type which best represented the underrewarded type as developed from the perspective of distributive justice was shown to have a high positive relationship to the measures of mental health. This reflected a negative relationship between the underrewarded type of inconsistency and mental health.

Upon examining the three status inconsistency types of underrewarded, overrewarded and consistent, the underrewarded type was found to have the highest mental health scores, indicating poor mental health. A serendipitous finding here was that when the interaction of SES and overreward was considered, the overrewarded had lower mental health scores (indicating better mental health) than the status consistents. As SES increased, the overrewarded tended to score lower. These findings

were consistent with the theoretical perspective of distributive justice.

An examination of the four types of status inconsistency provided the context for the first test of the predominant process in the relationship between status inconsistency and poor mental health. A finding in which the impaired type scored highest would favor the argument that poor mental health may result in status inconsistency, while a finding in which the underrewarded scored highest would favor the argument that status inconsistency of an underrewarded type has a negative influence on mental health. When the impaired type and the underrewarded type were compared, the underrewarded type was found to have higher scores on the mental health measures. This finding favored the argument that status inconsistency has a negative effect on mental health, rather than the argument that it is poor mental health which leads to status inconsistency.

An examination of the six types of status inconsistency provided the context for the second test of the predominant process in the relationship between status inconsistency and poor mental health. If the perception of underreward increased the mental health scores, the argument that status inconsistency of an underrewarded type has a negative influence on mental health would be favored. If the perception of underreward had little or no effect,

the argument that poor mental health may result in status inconsistency would be favored. In this test, the perception of underreward was found to be highly associated with higher scores on the mental health measures, regardless of the level of the more objective measures of status inconsistency. Thus, this test also favored the argument that status inconsistency has a negative effect on mental health. A serendipitous finding here was the increased predictive power which the perception of underreward exercised across all the categories of status inconsistency.

Conclusions

There are several conclusions to be drawn from this research. First of all, it appears that the suggestion of Lenski (1956b), Blalock (1966), Geschwender (1968a), and Eitzen (1970b) to direct research towards the effects of different types of status inconsistency is well advised. The different types of status inconsistency employed in this analysis were certainly related to the measures of mental health in different ways.

Second, the method of measuring status inconsistency developed by the U.S. Bureau of the Census (1967) appears to be methodologically sound. It allows adequate flexibility for dealing with many of the general criticisms of status inconsistency research.

Third, each set of analysis undertaken in the research found a relationship between status inconsistency and mental health. Almost without exception, the relationship took the form of a positive association between an underrewarded type of inconsistency and the mental health measures. This indicated a negative relationship between an underrewarded status and mental health.

Fourth, two independent tests to aid in assessing the predominant process in the relationship between status inconsistency and poor mental health were performed. Both of these tests strongly favored the argument that the underrewarded type of status inconsistency has a negative influence on mental health. Neither test provided support for the argument that poor mental health tends to result in status inconsistency. Although both processes are probably operating to some extent, these tests indicated that the negative influence of underreward on mental health was the predominant one.

It should be clearly pointed out that this analysis does not imply that being status inconsistent causes mental health problems. It does imply that an underrewarded type of status inconsistency is often experienced as a stressful condition. If experienced as stressful, then this stress, like any other stress, will contribute an overall negative effect towards the individual's

mental health. It is important to keep in mind that there are many other contributory factors which may exert either positive or negative effects on mental health.

Finally, conclusions stemming from the two serendipitous findings of this research should be noted. First, the overrewarded type of status inconsistency was associated with lower mental health scores (indicating better mental health) than the status consistents when the interaction of SES and overreward was considered. Second, the perception of underreward was found to be a better predictor of high mental health scores than were more objective measures of status inconsistency.

Future Research

There are many possibilities for future research into the relationship between status inconsistency and mental health. Several researchers have suggested various factors which merit some serious consideration. Bloombaum (1964) maintained that social mobility is an important variable to consider in relation to status inconsistency. He pointed out that the nature of the relationship between status inconsistency and social mobility was such that when a person was socially mobile often he was also status inconsistent. Thus,

whether a person is upwardly or downwardly mobile may have different implications in terms of his reaction to status inconsistency. House and Harkins (1975) contended that motivation is a factor to be considered in discrepancies between investments and rewards. If there is no particular desire for the reward variable, the discrepancy may very well not be at all stressful. In a related manner, Sampson (1963) maintained that aside from the level of motivation involved, there must be a general expectation that the statuses involved should be consistent. Lenski (1964) believed that the more pronounced the status inconsistency the greater the effect, and the higher the general status level the greater the effect. Hartman (1970) suggested that future studies of status inconsistency should employ several measures of status inconsistency in order to determine the usefulness of various measures.

Growing out of this research is the suggestion that future studies of status inconsistency consider the perception of status inconsistency: not only whether or not it is perceived, but also how it is perceived. Of course, the first question to answer would be whether or not it is perceived at all. If it is perceived, is it frustrating or uncomfortable for the individual? If it is, to what extent is it stressful? Is it a minor irritation, a major problem, or somewhere in between?

Research into the relationship between status inconsistency and mental health which could adequately deal with these factors could make a major contribution toward understanding the processes involved in that relationship.

Implications

The vast majority of research in the field of status inconsistency has been undertaken since the appearance of Lenski's 1954 article. Since Lenski's original article, there have been large amounts of research from many different disciplines concerned with status inconsistency. As Knoke (1972:23) pointed out, "part of the excitement of working in this area is the way in which status inconsistency spills across the artificial boundaries of social psychology, political science, stratification, and even historical processes." While perhaps accurate, this statement does not seem to reveal the real reason for the fascination with status inconsistency research in the social sciences and particularly in sociology.

It is the belief of this writer that the reason status inconsistency has fascinated sociologists and others is that it deals directly with the problem of social order. Does a social order exist such that we can expect

to find certain aspects (statuses) of that order consistently associated? If such a social order does exist, does the absence of these expected associations (status inconsistency) result in some type of social disorder (radical attitudes, prejudice, dissatisfaction, social stress, poor mental health, etc.)? This is the basic issue with which most status inconsistency research has dealt, although perhaps not always in explicit terms.

This particular research has approached this issue of social order and the absence of expected order from the broad perspective of structural functionalism, building on the basic notion of Davis and Moore (1945) that it is functional for society to insure that the most qualified people fill the most important positions (statuses). This is accomplished by rewarding the occupant of the position relative to the amount of effort (investment) required to properly execute the demands of the position. This general perspective is drawn out in greater detail from the perspective of distributive justice and supplemented by expectancy congruence and relative deprivation.

The findings of this research support the notion that upsets in the social order (status inconsistency) have effects for the individual. But the effects of the disproportionality are dependent upon the type of

disproportionality involved. Those underrewarded relative to their investments tended to have poorer mental health than those consistently rewarded. Those who were overrewarded relative to their investments tended to have mental health as good as or better than those consistenly rewarded, after considering the interaction of SES and overreward. More importantly, however, the findings demonstrate that the disproportionality of the "real" social order may not be as important to the functioning capacity of the individual as the disproportionality of the perceived, expected or desired social order. In his approach to distributive justice, Homans, noted this distinction:

> And, all the arguments about surplus value from John Ball to Karl Marx are one long attempt to prove that what employers count as investments ought not be so counted, and that therefore they got more than their fair share of the returns of economic enterprise and exploit the workers. Of course none of the arguments prove it; such things are not capable of proof; they are matters of taste. (Homans 1961:247)

Thus, Homans contended that both the legitimacy of the investments and rewards and their consistency or inconsistency are a matter of taste or, as dealt with in this analysis, a matter of perception. The implications of this research are that people do expect and desire order, proportionality, consistency, but the extent of their disturbance in its absence is more a

function of their perception of the absence than the actual presence or absence of consistency itself.

A major weakness of this and almost all status inconsistency research is that it does not effectively deal with social change. As Bloombaum (1964) indicated, social mobility and status inconsistency are related. Most social mobility probably involves some degree of status inconsistency, since individuals are unlikely to move upward or downward evenly across all statuses. A more likely process is that the individual advances or declines on one or two statuses, which leads to advancing or declining on other statuses. Status inconsistency may be a relatively temporary condition in an either upward or downward process of social mobility, or it may also be a static condition which lasts over a period of years. The relationship between status inconsistency and any variable (political change, stress, mental health, etc.) would be likely to vary according to the social change process, if any, which was involved. Does the status inconsistency represent upward mobility, downward mobility, or a static condition of no social mobility? Status inconsistency may represent disproportionality in a static social order or disproportionality in a changing social order.

With the changing socioeconomic structure of this and other societies, the disposition of status

inconsistency research may be modified. As the occupational market becomes saturated, the extent to which increments in education produce increments in occupational status and income may be reduced. In other words, the actual or objective extent of status consistency may be reduced. The question then becomes, Will the subjective perception of the extent of consistency between education, occupation and income also be reduced? If this should occur, then status inconsistency among these statuses would probably be experienced as a less disturbing condition. This type of change, however, would involve modifications in the existing social order, at least as it has been traditionally perceived by most Americans. Of course, the fascinating question is, If such a change does occur, what will be the structure of the new social order? What consistencies in rewards and investments, if any, will people have around which to build the goals of their lives?

APPENDIX

APPENDIX A

INCOME, EDUCATION AND OCCUPATION SCORES

INCOME SCORES

INCOME (dollars per year)	SCORES
10 to 999	9
1,000 to 1,999	24
2,000 to 2,999	36
3,000 to 3,999	45
4,000 to 4,999	53
5,000 to 5,999	60
6,000 to 6,999	67
7,000 to 7,999	73
8,000 to 8,999	78
9,000 to 9,999	83
10,000 to 10,999	90
15,000 to 24,999	97
25,000 or above	99

Source: Data for computing these scores were obtained from U.S. Bureau of the Census. United States Census of the Population: 1970. Vol. 1, Characteristics of the Population, pt. 1, United States Summary, Section 2. Washington, D.D.: U.S. Government Printing Office, 1973, pp. 368-79.

EDUCATION SCORES

EDUCATION (years of school)	SCORES
None	1
1 to 4	4
5 to 8	17
9 to 11	37
12	63
13 to 15	84
16 to 18	95

Source: Data for computing these scores were obtained from U.S. Bureau of the Census. United States Census of the Population: 1970. Vol. 1, Characteristics of the Population, pt. 1, United States Summary, Section 2. Washington, D.C.: U.S. Government Printing Office, 1973, pp. 368-79.

OCCUPATION SCORES

OCCUPATIONS	SCORES
Professional, Technical and Kindred Workers	
Accountants	89
Architects	97
Computer specialists:	
Computer programmers	89
Computer systems analysts	93
Computer specialists, n.e.c.	93
Engineers:	
Aeronautical and astronautical engineers	96
Chemical engineers	97
Civil engineers	95
Electrical and electronic engineers	95
Industrial engineers	93
Mechanical engineers	95
Metallurgical and materials engineers	96
Mining engineers	94
Petroleum engineers	96
Sales engineers	94
Engineers, n.e.c.	94
Farm management advisors	94
Foresters and conservationists	78
Home management advisors	77
Lawyers and judges:	
Judges	99
Lawyers	99
Librarians, archivists, and curators:	
Librarians	75
Archivists and curators	80
Mathematical specialists:	
Actuaries	94
Mathematicians	96
Statisticians	88
Life and physical scientists:	
Agricultural scientists	91
Atmospheric and space scientists	95
Biological scientists	91

OCCUPATIONS	SCORES
Chemists	94
Geologists	97
Marine scientists	96
Physicists and astronomers	99
Life and physical scientists, n.e.c.	97
Operations and systems researchers and analysts	91
Personnel and labor relations workers	89
Physicians, dentists, and related practitioners:	
Chiropractors	95
Dentists	99
Optometrists	99
Pharmacists	94
Physicians, medical and osteopathic	99
Podiatrists	99
Veterinarians	99
Health practitioners, n.e.c.	94
Nurses, dietitians, and therapists:	
Dietitians	56
Registered nurses	66
Therapists	73
Health technologists and technicians:	
Clinical laboratory technologists and technicians	70
Dental hygienists	70
Health record technologists and technicians	68
Radiologic technologists and technicians	64
Therapy assistants	54
Health technologists and technicians, n.e.c.	63
Religious workers:	
Clergymen	77
Religious workers, n.e.c.	59
Social scientists:	
Economists	96
Political scientists	98
Psychologists	96
Sociologists	94
Urban and regional planners	95
Social scientists, n.e.c.	91
Social and recreation workers:	
Social workers	82
Recreation workers	58
Teachers, college and university:	
Agriculture teachers	97
Atmospheric, earth, marine, and space teachers	96
Biology teachers	96
Chemistry teachers	97
Physics teachers	97
Engineering teachers	98
Mathematics teachers	95

OCCUPATIONS	SCORE
Health Specialties teacher	96
Psychology teachers	96
Business and commerce teachers	95
Economics teachers	98
History teachers	95
Sociology teachers	94
Social science teachers, n.e.c.	96
Art, drama, and music teachers	92
Coaches and Physical Education teachers	94
Education teachers	98
English teachers	91
Foreign language teachers	89
Home economics teachers	87
Law teachers	99
Theology teachers	91
Trade, industrial, and technical teachers	90
Miscellaneous teachers, college and university	94
Teachers, college and university, subject not specified	87
Teachers, except college and university:	
Adult education teachers	81
Elementary school teachers:	
Public	80
Private	66
Prekindergarten and kindergarten teachers:	
Public	72
Private	47
Secondary school teachers:	
Public	86
Private	77
Teachers, except college and university, n.e.c.	52
Engineering and science technicians:	
Agriculture and biological technicians, except health	65
Chemical technicians	79
Draftsmen	80
Electrical and electronic engineering technicians	82
Industrial engineering technicians	79
Mechanical engineering technicians	86
Mathematical technicians	86
Surveyors	72
Engineering and science technicians, n.e.c.	77
Technicians, except health and engineering and science:	
Airplane pilots	94
Air traffic controllers	85
Embalmers	75
Flight engineers	91
Radio engineers	60
Tool programmers, numerical control	87
Technicians, n.e.c.	79

OCCUPATIONS	SCORES
Vocational and educational counselors	92
Writers, artists, and entertainers:	
Actors	71
Athletes and kindred workers	56
Authors	90
Dancers	40
Designers	89
Editors and reporters	86
Musicians and composers	49
Painters and sculptors	77
Photographers	75
Public relations men and publicity writers	91
Radio and television announcers	71
Writers, artists, and entertainers, n.e.c.	80
Research workers, not specified	86
Professional, technical, and kindred workers - allocated	72

Managers and Administrators, Except Farm

Assessors, controllers, and treasurers; local pub. Admin.	67
Bank officers and financial managers	90
Buyers and shippers, farm products	65
Buyers, wholesale and retail trade	78
Credit men	80
Funeral directors	85
Health administrators	90
Construction inspectors; public administration	77
Inspectors, except construction; public administration:	
Federal public administration and postal service	84
State public administration	77
Local public administration	74
Managers and superintendents, building	55
Office managers, n.e.c.	81
Officers, pilots, and pursers; ship	63
Officials and administrators; public administration, n.e.c.:	
Federal public administration and postal service	92
State public administration	88
Local public administration	79
Officials of lodges, societies and unions	86
Postmasters and mail superintendents	78
Purchasing agents and buyers, n.e.c.	87
Railroad conductors	69
Restaurant, cafeteria, and bar managers	56
Sales managers and department heads, retail trade	74
Sales managers, except retail trade	94
School administrators, college	97
School administrators, elementary and secondary	97

OCCUPATIONS	SCORES
Managers and administrators, n.e.c., salaried:	
Construction	81
Durable goods manufacturing	93
Non-durable goods, incl. not specified manufacturing	92
Transportation	85
Communications, utilities and sanitary service	88
Wholesale trade	88
Retail trade:	
Hardware, farm equipment and building material, retailing	82
General merchandise stores	79
Food stores	70
Motor vehicles and accessories retailing	80
Gasoline service stations	53
Apparel and accessories stores	77
Furniture, more furnishing and equipment stores	84
Other retail trade	79
Finance, insurance and real estate	92
Business and repair service	89
Personal services	62
All other industries	91
Managers and administrators, n.c.e., self-employed:	
Construction	69
Durable goods manufacturing	72
Non-durable goods, incl. not specified manufacturing	83
Transportation	67
Communications, utilites and sanitary service	71
Wholesale trade	78
Retail trade	
Hardware, farm equipment and building material retailing	75
General merchandise stores	60
Feed stores	44
Motor vehicles and accessories retailing	75
Gasoline service station	57
Apparell and accessories store	74
Furniture, home furnishing and equipment stores	74
Other retail stores	63
Finance, insurance and real estate	93
Business, and repair service	75
Personal service	53
All other industries	74
Managers and administrators, except farm-allocated	67

OCCUPATIONS	SCORES
Sales Workers	
Advertising agents and salesmen	86
Auctioneers	69
Demonstrators	31
Hucksters and peddlers	28
Insurance agents, brokers, and underwriters	86
Newsboys	12
Real Estate agents and brokers	81
Stock and bond salesmen	95
Salesmen and sales clerks, n.e.c:	
Sales representatives, manufacturing industries	88
Sales representatives, wholesale trade	81
Sales clerks, retail trade:	
General merchandise store	32
Food store	24
Apparel and accessories store	34
Other sales clerks - retail trade	37
Salesmen, retail trade	65
Salesmen of services and construction	67
Sales workers - allocated	34
Clerical and Kindred Workers	
Bank Tellers	49
Billing clerks	48
Bookkeepers	52
Cashiers	29
Clerical assistants, social welfare	49
Clerical supervisors, n.e.c.	79
Collectors, bill and account	61
Counter clerks, except food	37
Dispatchers and starters, vehicle	63
Enumerators and interviewers	40
Estimators and investigators, n.e.c.	76
Expediters and production controllers	72
File clerks	41
Insurance adjusters, examiners, and investigators	83
Library attendants and assistants	44
Mail carriers, post office	71
Mail handlers, except post office	41
Messengers and office boys	28
Meter readers, utilities	56
Office machine operators:	
Bookkeeping and billing machine operators	47
Calculating machine operators	52
Computer and peripheral equipment operators	67

OCCUPATIONS	SCORE
Duplicating machine operators	46
Key punch operators	49
Tabulating machine operators	56
Office machine operators, n.e.c.	44
Payroll and timekeeping clerks	57
Postal clerks	68
Proofreaders	54
Real estate appraisers	91
Receptionists	43
Secretaries	56
Shipping and receiving clerks	50
Statistical clerks	59
Stenographers	58
Stock clerks and storekeepers	49
Teacher aides, except school monitors	37
Telegraph operators	67
Telephone operators	44
Ticket station and express agents	74
Typists	46
Weighers	44
Industry	
Manufacturing	57
Transportation, Communication, and other pub. utilities	61
Wholesale and retail trade	41
Finance, insurance and real estate	51
Professional and retail services	29
Public administration	59
All other industries	41
Clerical and kindred workers - allocated	39
Craftsmen and Kindred Workers	
Automobile accessories installers	43
Bakers	34
Cabinetmakers	41
Carpet installers	51
Construction craftsmen	
Brickmasons and stonemasons	46
Bulldozer operators	34
Carpenters	42
Cement and concrete finishers	32
Electricians	70
Excavating, grading, and road machine operators; except bulldozer	41
Floor layers, except tile setters	48

OCCUPATIONS	SCORES
Painters, construction and maintenance	32
Paperhangers	39
Plasterers	42
Plumbers and pipe fitters	62
Roofers and slaters	32
Structural metal craftsmen	61
Tile setters	50
Cranemen, derrickmen, and hoistmen	46
Decorators and window dressers	46
Dental laboratory technicians	61
Electric power linemen and cablemen	70
Engravers, except photoengravers	50
Foremen, n.e.c.	
Construction	62
Manufacturing	
Metal industries	71
Machinery, except electrical	76
Electrical machinery, equipment and supplies	78
Transportation equipment	77
Other durable goods	65
Food and kindred products	63
Textiles, textile products and apparel	48
Other non-durable goods, incl. not specified manuf.	72
Transportation	67
Communication, utilities and sanitary service	77
Wholesale and retail trade	67
All other industries	66
Furniture and wood finishers	30
Furriers	46
Glaziers	56
Inspectors, scalers and graders; long and lumber	36
Inspectors, n.e.c.	66
Jewelers and watchmakers	53
Locomotive engineers	69
Locomotive firemen	72
Mechanics and repairmen:	
Airconditioning, heating, and refrigeration	61
Aircraft	72
Automobile body repairmen	47
Automobile mechanics	45
Data processing machine repairmen	85
Farm implement	44
Heavy equipment mechanics, including diesel	57
Household appliance and accessory installers and mechanics	58
Loom fixers	30
Office machine	69
Radio and television	60

OCCUPATIONS	SCORES
Railroad and car shop	50
Miscellaneous mechanics and repairmen	60
Mechanic, except auto, apprentices	58
Not specified mechanics and repairmen	56
Metal craftsmen, except mechanics	
Blacksmith	37
Boilermakers	56
Forgemen, and hammermen	48
Heat treaters, annealers and temperers	53
Job and die setters, metal	54
Machinist	62
Millwrights	62
Molders, metal	38
Pattern and model makers, except paper	72
Rollers and finishers, metal	52
Sheetmetal workers and tinsmiths	63
Shipfitters	58
Tool and die makers	73
Millers; grain, flour, and feed	27
Motion picture projectionists	50
Opticians, and lens grinders and polishers	61
Piano and organ tuners and repairmen	54
Power station operators	75
Printing craftsmen:	
Bookbinders	40
Compositors and Typesetters	64
Electrotypers and sterotypers	68
Photoengravers and lithographers	75
Pressmen and plate printers, printing	63
Shoe repairmen	18
Sign painters and letterers	48
Stationary engineers	64
Stone cutters and stone carvers	33
Tailors	28
Telephone installers and repairmen	74
Telephone linemen and splicers	69
Upholsterers	33
Craftsmen and kindred workers, n.e.c.	49
Former members of the Armed Forces	42
Craftsmen and kindred workers - allocated	44
Operators, Except Transport	
Asbestos and insulation workers	61
Assemblers	41

OCCUPATIONS	SCORES
Blasters and powdermen	36
Bottling and canning operatives	22
Chainmen, rodmen, and axmen; surveying	44
Checkers, examiners, and inspectors; manufacturing	47
Clothing ironers and pressers	11
Cutting operatives, n.e.c.	33
Dressmakers and seamstresses, except factory	18
Drillers, earth	44
Dry wall installers and lathers	51
Dyers	29
Garage workers and gas station attendants	20
Graders and sorters, manufacturing	17
Produce graders and packers, except factory and farm	05
Laundry and dry cleaning operatives, n.e.c.	14
Meat cutters and butchers, except manufacturing	54
Meat cutters and butchers, manufacturing	33
Meat wrappers, retail trade	29
Metalworking operatives, except Precision machines	
Filers, polishers, sanders and buffers	30
Furnacemen, smeltermen, and pourers	43
Heaters, metal	49
Metal planters	45
Punch and stamping press operative	40
Riveters and fasteners	28
Solderers	29
Molders and plane cutters	49
Milliners	19
Mine operatives, n.e.c.	
Coal mining	35
Crude petroleum and natural gas extraction	48
Mining and quarrying, except fuel	42
Mixing operatives	43
Oilers and greasers, except auto	41
Packers and wrappers, except meat and produce	24
Painters, manufactured articles	36
Photographic process workers	51
Precision machine operatives:	
Drill press operatives	42
Grinding machine operatives	52
Lathe and milling machine operatives	59
Precision machine operatives, n.e.c.	56
Sailors and deckhands	36
Sawyers	19
Sewers and stitchers	14
Shoemaking machine operatives	15
Stationary firemen	45
Textile operatives:	
Carding, lapping, and combing operatives	17

OCCUPATIONS	SCORES
Knitters, loopers, and toppers	19
Spinners, twisters, and winders	16
Weavers	22
Textile operatives, n.e.c.	19
Winding Operatives	42
Industry	
Manufacturing	
Durable Goods	
Lumber and wood products, except furniture	19
Furniture and fixtures	17
Stone, clay and glass products	
Glass and glass products	44
Cement, Concrete, gypsum and plastic products	31
Other stone, clay and glass products	32
Primary metal industries	
Blast furnaces, steel works and rolling and finishing mills	51
Other primary iron and steel industries	37
Primary nonferrous industries	45
Fabricated metal industries, incl. not specified metal	
Cutlery, hand tools and other hardware	32
Fabricated structural metal products	34
Screw machine products and metal stamping	32
Miscellaneous fabricated metal products and not specified metal	39
Machinery, except electrical	
farm machinery and equipment	44
Construction and material handling machines	57
Metal working machinery	54
Office and accounting machines and electronic computing equipment	50
Other machinery, except electrical	47
Electrical machinery, equipment and supplies	
Household appliances	41
Radio, T.V. and Communication equipment	46
Electrical machinery, equipment and supplies, n.e.c.	40
Not specified electrical machinery, equipment and supplies	40
Transportation Equipment	
Motor vehicles and motor vehicle equipment	52
Aircraft and parts	58
Other transportation equipment	38
Professional and photographic equipment and watches	43
Ordnance	46
Miscellaneous manufacturing industries	22
Durable goods - allocated	36

OCCUPATIONS	SCORES
Nondurable goods	
Food and kindred products	
Meat products	19
Dairy products	46
Canning and preserving fruits, vegetables and seafood	09
Bakery products	31
Beverage industries	45
Other food and kindred products	30
Tobacco manufacturers	20
Apparel and other fabricated textile products	
Apparel and accessories	15
Miscellaneous fabricated textile products	16
Paper and allied products	
Pulp, paper and paperboard mills	56
Miscellaneous paper and pulp products	38
Paperboard containers and boxes	33
Printing, publishing and allied industries	41
Chemicals and allied products	
Industrial chemicals	65
Synthetic fibers	49
Soap and cosmetics	41
Other chemicals and allied products	57
Petroleum and coal products	68
Rubber and miscellaneous plastic products	
Rubber products	48
Miscellaneous plastic products	29
Leather and leather products	
Tanned, curried and finished leather	24
Footwear, except rubber	17
Leather products except footwear	15
Nondurable goods - allocated	24
Not specified manufacturing industries	26
Nonmanufacturing industries	
Construction	32
Railroads and railway express service	32
Transportation, except railroads	57
Communication, and sanitary services	56
Wholesale trade	24
Retail trade	24
Business and repair services	37
Public administration	51
All other industries	28
Operatives, except transportation - allocated	22

OCCUPATIONS	SCORES
Transport Equipment Operatives	
Boatmen and canalmen	37
Bus drivers	40
Conductors and motormen, urban rail transit	63
Deliverymen and routemen	48
Forklift and tow motor operatives	38
Motormen; mine, factory, logging camp, etc.	37
Parking attendants	25
Railroad brakemen - n.e.c.	65
Railroad switchmen	65
Taxicab drivers and chauffeurs	35
Truck drivers	41
Transport equipment operatives - allocated	34
Laborers, Except Farm	
Animal caretakers, except farm	25
Carpenters' helpers	14
Construction laborers, except carpenters' helpers	24
Fishermen and oystermen	16
Freight and material handlers	35
Garbage collectors	22
Gardeners and groundskeepers, except farm	14
Longshoremen and stevedores	40
Lumbermen, raftsmen, and woodchoppers	12
Stock handlers	19
Teamsters	19
Vehicle washers and equipment cleaners	15
Warehousemen, n.e.c.	49
Industry	
Manufacturing	
Durable goods	
Lumber and wood products, except furniture	13
Furniture and fixtures	14
Stone, clay, and glass products	
cement, concrete, gypsum and plastic products	28
structural clay products	17
other stone, clay and glass products	35
Primary metal industries	
Blast furnaces, steel works, and rolling and finishing mills	43
Other primary iron and steel industries	30
Primary nonferrous industries	40
Fabricated metal industries, incl. not specified metal	24

OCCUPATIONS	SCORES
Machinery, except electrical	38
Electrical machinery, equipment and supplies	32
Transportation equipment	
Motor vehicles and motor vehicle equipment	40
Ship and boat building and repairing	29
Other transportation equipment	32
Professional and photographic equipment and watches	28
Ordnance	37
Miscellaneous manufacturing industries	13
Manufacturing durable goods - allocated	15
Nondurable goods	
Food and kindred products	
Meat products	23
Dairy products	34
Canning and preserving fruits, vegetables and seafood	10
Grain, mill products	26
Beverage industries	27
Other food and kindred products	16
Tobacco manufacturers	11
Textile mill products	
Yarn thread and fabric mills	13
Other textile mill products	15
Apparel and other fabricated textile products	14
Paper and allied products	
pulp, paper and paperboard mills	49
other paper and allied products	25
Printing, publishing and allied industries	18
Chemicals and allied products	40
Petroleum and coal products	48
Rubber and miscellaneous plastic products	35
Leather and leather products	14
Nondurable goods - allocated	09
Not specified manufacturing industries	21
Nonmanufacturing industries	
Railroads and railway express service	26
Transportation, except railroads	28
Communications, utilites and sanitary service	25
Transportation, communication, utilities and sanitary services - allocated	07
Wholesale trade	14
Retail trade	10
Business and repair services	20
Personal services	03
Public Administration	19
All other industries	13
Laborers, except farm - allocated	15

OCCUPATIONS	SCORES
Farmers and Farm Managers	
Farmers owners and tenants	31
Farm managers	52
Farmers and farm managers - allocated	18
Farm Laborers and Farm Foremen	
Farm foremen	34
Farm laborers, wage workers	04
Farm laborers, unpaid family workers	15
Farm service laborers, self-employed	37
Farm laborers and farm foremen - allocated	02
Service Workers, Except Private Household	
Cleaning Service Workers:	
Chambermaids and maids, except private household	05
Cleaners and charwomen	09
Janitors and sextons	19
Food Service Workers:	
Bartenders	42
Busboys	12
Cooks, except private household	14
Dishwashers	07
Food counter and fountain workers	17
Waiters	19
Food service workers, n.e.c.	15
Health Service Workers:	
Dental assistants	41
Health aides, except nursing	38
Health trainees	42
Lay midwives	34
Nursing aides, orderlies, and attendants	28
Practical nurses	44
Personal Service Workers:	
Airline stewardesses	69
Attendants, recreation and amusement	24
Attendants, personal service, n.e.c.	31
Baggage porters and bellhops	30
Barbers	40
Boarding and lodging housekeepers	25
Bootblacks	02
Child care workers, except private household	23

OCCUPATIONS	SCORES
Elevator operators	21
Hairdressers and cosmetologists	35
Housekeepers, except private household	36
School monitors	30
Ushers, recreation and amusement	15
Welfare service aides	38
Protective Service Workers:	
Crossing guards and bridge tenders	18
Firemen, fire protection	74
Guards and watchmen	43
Marshals and constables	60
Policemen and detectives:	
Public	77
Private	59
Sheriffs and bailiffs	65
Service workers, except private household - allocated	15
Private Houshold Workers	
Child care workers, private household	10
Cooks, private household	02
Housekeepers, private household	03
Laundresses, private household	00
Maids and servants, private household	02
Private household workers - allocated	01

Source: Charles B. Nam, John LaRocque, Mary G. Powers, and Joan Holmberg. "Occupational Status Scores: Stability and Change." American Statistical Association, Proceedings of the Social Statistics Section, Washington, D.C.: American Statistical, 1970, pp. 570-75.

APPENDIX B

SIX MEASURES OF MENTAL HEALTH

Health Opinion Survey Measure

1. Do you have any physical or health problems at the present?
   - Yes
   - No

2. Do your hands ever tremble enough to bother you?
   - Often
   - Sometimes
   - Never

3. Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?
   - Often
   - Sometimes
   - Never

4. Have you ever been bothered by your heart beating hard?
   - Often
   - Sometimes
   - Never

5. Do you tend to feel tired in the mornings?
   - Often
   - Sometimes
   - Never

6. Do you have any trouble getting to sleep and staying asleep?
   - Often
   - Sometimes
   - Never

7. How often are you bothered by having an upset stomach?
   - Often
   - Sometimes
   - Never

8. Are you ever bothered by nightmares (dreams which frighten you)?
   Often
   Sometimes
   Never

9. Have you ever been troubled by "cold sweats"?
   Often
   Sometimes
   Never

10. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?
   Often
   Sometimes
   Never

11. Do you smoke?
   A lot
   Some
   Not at all

12. Do you ever have loss of appetite?
   Often
   Sometimes
   Never

13. Has any ill health affected the amount of work (housework) you do?
   Often
   Sometimes
   Never

14. Do you ever feel weak all over?
   Often
   Sometimes
   Never

15. Do you ever have spells of dizziness?
   Often
   Sometimes
   Never

16. Do you tend to lose weight when you worry?
   Often
   Sometimes
   Never

17. Have you ever been bothered by shortness of breath when you were not exerting yourself?
    Often
    Sometimes
    Never

18. For the most part, do you feel healthy enough to carry out the things that you would like to do?
    Often
    Sometimes
    Never

19. Do you feel in good spirits?
    Most of the time
    Sometimes
    Very few times

20. Do you sometimes wonder if anything is worthwhile anymore?
    Often
    Sometimes
    Never

Depression Measure

1. Do you feel in good spirits? Would you say:
   - Most of the time
   - Sometimes
   - Very few times

2. How often do you have crying spells or feel like it? Would you say:
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never

3. How often do you feel you don't enjoy (doing) things any more? Would you say:
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never feel that way

4. How often do you feel alone and helpless? Would you say:
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never

5. How often do you feel that people don't care what happens to you? Would you say:
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never

6. How often do you feel that life is hopeless? Would you say:
   - Often
   - Sometimes
   - Never

7. Do you tend to feel tired in the mornings? Would you say:
   - Often
   - Sometimes
   - Never

8. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body? Would you say:
   Often
   Sometimes
   Never

9. Have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going? Would you say:
   All the time
   Often
   Sometimes
   Seldom
   Never

10. Do you have any trouble getting to sleep and staying asleep? Would you say:
   Often
   Sometimes
   Never

11. How often do you have trouble with sleeping? Would you say:
   All the time
   Often
   Sometimes
   Seldom
   Never

12. Do you ever have loss of appetite? Would you say:
   Often
   Sometimes
   Never

13. When things don't turn out, how often would you say you blame yourself?
   All the time
   Often
   Sometimes
   Seldom
   Never

14. How often do you think about suicide? Would you say:
   All the time
   Often
   Sometimes
   Seldom
   Never

15. Life has changed so much in our modern world that people are powerless to control their own lives. Would you:

Strongly agree
Agree
Undecided
Disagree
Strongly disagree

16. Do you sometimes wonder if anything is worthwhile anymore? Would you say:

Often
Sometimes
Never

17. How often would you say things don't turn out the way you want them to? Would you say: (don't read "always turn out")

All the time
Often
Sometimes
Seldom
(Always turn out)

18. How does the future look to you? Would you say:

Excellent
Good
Fair
Poor
Bad

Mood Measure

1. Do you feel in good spirits?
   - Most of the time
   - Sometimes
   - Very few times

2. Do you sometimes wonder if anything is worthwhile anymore?
   - Often
   - Sometimes
   - Never

3. How often would you say things don't turn out the way you want them to?
   - All the time
   - Often
   - Sometimes
   - Seldom

4. How often do you have crying spells or feel like it?
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never

5. How often do you feel you don't enjoy doing things anymore?
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never feel that way

6. How often do you feel alone and helpless?
   - All the time
   - Often
   - Sometimes
   - Seldom
   - Never

7. How does the future look to you?
   - Excellent
   - Good
   - Fair
   - Poor
   - Bad

8. How often do you feel that life is hopeless?
   All the time
   Often
   Sometimes
   Seldom
   Never

9. How often do you feel that people don't care what happens to you?
   All the time
   Often
   Sometimes
   Seldom
   Never

Anxiety Measure

1. Do your hands ever tremble enough to bother you?
   Often
   Sometimes
   Never

2. Are you ever troubled by your hands or feet sweating so that they feel damp or clammy?
   Often
   Sometimes
   Never

3. Are you ever bothered by your heart beating hard?
   Often
   Sometimes
   Never

4. Have you ever been troubled by cold sweats?
   Often
   Sometimes
   Never

5. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?
   Often
   Sometimes
   Never

6. Do you ever have loss of appetite?
   Often
   Sometimes
   Never

7. Has ill health affected the amount of work (housework) you do?
   Often
   Sometimes
   Never

8. Do you ever feel weak all over?
   Often
   Seomtimes
   Never

9. Do you ever have spells of dizziness?
   Often
   Sometimes
   Never

10. Have you ever been bothered by shortness of breath when you are not exerting yourself?
    Often
    Sometimes
    Never

11. For the most part do you feel healthy enough to carry out the things that you would like to do?
    Often
    Sometimes
    Never

12. Have you ever had periods of days or weeks when you couldn't take care of things because you couldn't get going?
    All the time
    Often
    Sometimes
    Seldom
    Never

Worry-Nervous Breakdown Measure

1. During the last year, did worry or nervousness get you down physically?
   All the time
   Often
   Sometimes
   Seldom
   Never

2. During the last year, did worry or nervousness cause problems with your family life?
   All the time
   Often
   Sometimes
   Seldom
   Never

3. During the last year, did worry or nervousness interfere with your social activities?
   All the time
   Often
   Sometimes
   Seldom
   Never

4. During the last year, have you ever had to stay at home or in bed because of worry or nervousness?
   All the time
   Often
   Sometimes
   Seldom
   Never

5. During the last year, were you unable to do your usual work because of worry or nervousness?
   All the time
   Often
   Sometimes
   Seldom
   Never

6. In the last year, how often did you feel that you might have a nervous breakdown or that you might lose your mind?
   All the time
   Often
   Sometimes
   Seldom
   Never

7. Does this feeling get your down physically?
   All the time
   Often
   Sometimes
   Seldom
   Never

8. During the last year, has this feeling caused problems with your family/personal life?
   All the time
   Often
   Sometimes
   Seldom
   Never

9. Does this feeling interfere with your social activities?
   All the time
   Often
   Sometimes
   Seldom
   Never

10. During the last year, have you ever had to stay at home or in bed because of this feeling?
   All the time
   Often
   Sometimes
   Seldom
   Never

11. During the last year, were you unable to do your usual work at any time because of feeling that you might have a nervous breakdown?
   All the time
   Often
   Sometimes
   Seldom
   Never

Psychopathology Measure

1. How often do you find yourself doing the same things over and over to be sure they are right?
   All the time
   Often
   Sometimes
   Seldom
   Never

2. How often do you get upset, uptight, or irritable with those around you?
   All the time
   Often
   Sometimes
   Seldom
   Never

3. How often do you feel that people are trying to pick quarrels or start arguments with you?
   All the time
   Often
   Sometimes
   Seldom
   Never

4. How often do you think people are following you or plotting against you?
   All the time
   Often
   Sometimes
   Seldom
   Never

5. How often do you get really angry?
   All the time
   Often
   Sometimes
   Seldom
   Never

6. How often do things not seem real to you or do you have feelings that you are not really here?
   All the time
   Often
   Sometimes
   Seldom
   Never

7. How often do you see or hear things that other people don't think are there?

All the time
Often
Sometimes
Seldom
Never

APPENDIX C

THIRTEEN STATUS INCONSISTENCY TYPES BY SIX MEASURES OF MENTAL HEALTH

Tables 46 to 51 indicate the distribution of the six mental health measures on the thirteen types of status inconsistency.

TABLE 46. THIRTEEN STATUS INCONSISTENCY TYPES BY THE HEALTH OPINION SURVEY SCORE

INCONSISTENCY	N	MEAN	S.D.	% HIGH
1 (C)	544	25.47	4.46	4.2
2 (I/OE)	132	26.48	5.39	6.1
3 (OE/I)	25	27.24	5.96	8.0
4 (E/OI)	155	25.96	4.19	5.2
5 (OI/E)	84	25.68	4.81	3.6
6 (O/EI)	60	26.75	4.86	8.3
7 (EI/O)	439	25.89	4.63	4.8
8 (O/E/I)	1	27.00	--	0.0
9 (O/I/E)	0	---	--	-
10 (E/I/O)	6	27.00	2.68	0.0
11 (E/O/I)	1	26.00	--	0.0
12 (I/E/O)	0	---	--	-
13 (I/O/E)	25	25.20	4.22	0.0
TOTAL	1472	25.83	4.64	4.6
	F = 0.987		P = .459	

TABLE 47. THIRTEEN STATUS INCONSISTENCY TYPES BY THE DEPRESSION SCORE

INCONSISTENCY	N	MEAN	S.D.	% HIGH
1 (C)	544	12.62	8.40	8.6
2 (I/OE)	132	13.89	9.78	12.9
3 (OE/I)	25	15.28	8.68	12.0
4 (E/OI)	155	14.40	7.43	11.6
5 (OI/E)	84	11.17	7.59	6.0
6 (O/EI)	60	15.00	10.08	20.0
7 (EI/O)	439	13.17	8.86	10.3
8 (O/E/I)	1	35.00	--	100.0
9 (O/I/E)	0	---	--	---
10 (E/I/O)	6	21.00	6.72	33.3
11 (E/O/I)	1	17.00	--	0.0
12 (I/E/O)	0	---	--	-
13 (I/O/E)	25	9.44	7.18	4.0
TOTAL	1472	13.14	8.65	10.0
	F = 2.619		P = .002	

TABLE 48. THIRTEEN STATUS INCONSISTENCY TYPES BY THE MOOD SCORE

INCONSISTENCY	N	MEAN	S.D.	% HIGH
1 (C)	544	6.31	4.82	8.6
2 (I/OE)	132	7.14	5.62	14.4
3 (OE/I)	25	7.08	4.71	12.0
4 (E/OI)	155	7.34	4.36	8.4
5 (OI/E)	84	5.08	3.66	2.4
6 (O/EI)	60	7.63	6.36	16.7
7 (EI/O)	439	6.72	5.20	11.8
8 (O/E/I)	1	23.00	--	100.0
9 (O/I/E)	0	---	--	---
10 (E/I/O)	6	10.83	5.23	33.3
11 (E/O/I)	1	10.00	--	0.0
12 (I/E/O)	0	---	--	-
13 (I/O/E)	25	3.76	3.42	4.0
TOTAL	1472	6.60	5.02	9.7
	F = 3.479		P = .001	

TABLE 49. THIRTEEN STATUS INCONSISTENCY TYPES BY THE ANXIETY SYMPTOM SCORE

INCONSISTENCY		N	MEAN	S.D.	% HIGH
1	(C)	544	4.00	5.13	5.3
2	(I/OE)	132	4.76	6.56	6.8
3	(OE/I)	25	6.04	6.75	8.0
4	(E/OI)	155	4.72	4.81	7.7
5	(OI/E)	84	3.93	5.77	4.8
6	(O/EI)	60	5.42	5.69	6.7
7	(EI/O)	439	4.32	5.01	6.4
8	(O/E/I)	1	10.00	--	0.0
9	(O/I/E)	0	---	--	-
10	(E/I/O)	6	4.83	4.67	0.0
11	(E/O/I)	1	2.00	--	0.0
12	(I/E/O)	0	--	--	-
13	(I/O/E)	25	4.28	4.76	8.0
	TOTAL	1472	4.34	5.29	5.9
		F = 0.903		P = .544	

TABLE 50. THIRTEEN STATUS INCONSISTENCY TYPES BY THE WORRY, NERVOUS BREAKDOWN SCORE

INCONSISTENCY	N	MEAN	S.D.	% HIGH
1 (C)	544	1.59	3.93	9.6
2 (I/OE)	132	1.39	3.95	9.1
3 (OE/I)	25	4.00	7.18	24.0
4 (E/OI)	155	2.01	4.12	14.2
5 (OI/E)	84	0.79	2.63	6.0
6 (O/EI)	60	1.80	4.34	11.7
7 (EI/O)	439	1.55	4.12	10.7
8 (O/E/I)	1	7.00	--	100.0
9 (O/I/E)	0	--	--	---
10 (E/I/O)	6	3.67	5.72	33.3
11 (E/O/I)	1	0.00	--	0.0
12 (I/E/O)	0	--	--	-
13 (I/O/E)	25	0.64	0.96	8.0
TOTAL	1472	1.60	4.04	9.9
	F = 1.619		P = .08	

TABLE 51. THIRTEEN STATUS INCONSISTENCY TYPES BY THE PSYCHOPATHOLOGY SCORE

INCONSISTENCY	N	MEAN	S.D.	% HIGH
1 (C)	544	4.85	3.07	9.6
2 (I/OE)	132	4.73	3.91	13.6
3 (OE/I)	25	6.04	2.95	20.0
4 (E/OI)	155	5.01	2.63	9.7
5 (OI/E)	84	4.09	3.02	7.1
6 (O/EI)	60	5.77	4.48	18.3
7 (EI/O)	439	4.99	3.78	16.2
8 (O/E/I)	1	19.00	--	100.0
9 (O/I/E)	0	---	--	---
10 (E/I/O)	6	5.00	3.35	16.7
11 (E/O/I)	1	5.00	--	0.0
12 (I/E/O)	0	--	--	-
13 (I/O/E)	25	4.20	3.25	16.0
TOTAL	1472	4.91	3.43	12.3
	F = 2.544		P = .003	

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BIOGRAPHICAL SKETCH

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He was married during the interim of his doctoral studies in July of 1973, to the former Rebecca Jenkins.

I certify that I have read this study and that in my opinion it conforms to acceptable standards to scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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